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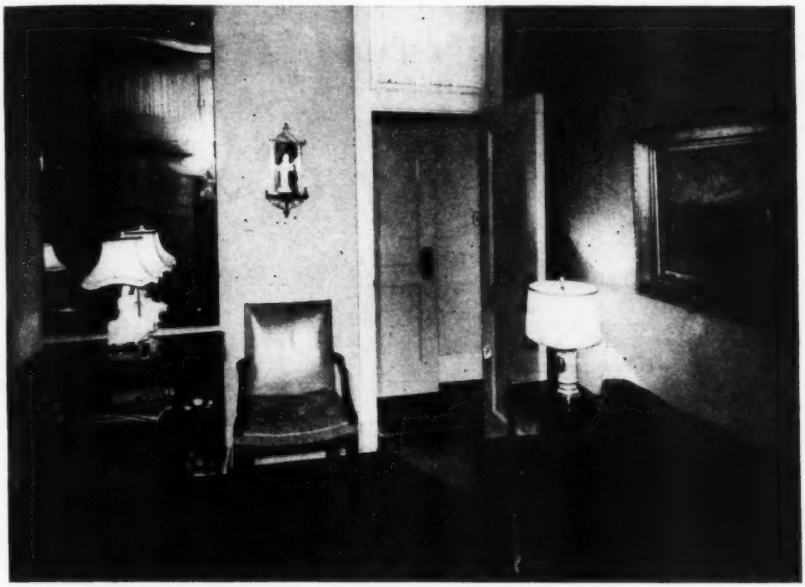

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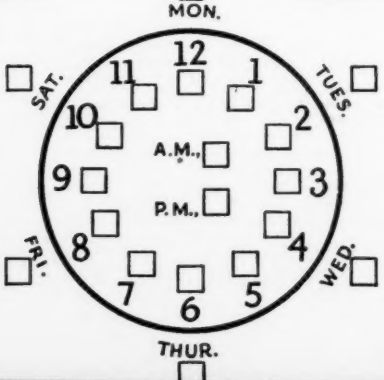

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CLARKE EDMUND CHAMBERLAIN, D.D.S.
VICE-PRESIDENT, 1939-1940

DENTAL SERVICE FOR THE CHILD*

By JOHN C. BRAUER, D.D.S., M.S., F.A.C.D.

THE PROBLEMS concerning the child patient are becoming more evident in the daily general practice of dentistry, and the practitioner is beginning to realize that a substantial part of his future income will be from his younger clientele. In a very few years the dentist who refuses to make some satisfactory disposition of his juvenile patients will be on the "spot." The dental schools are stressing the subject of pedodontics more and more and the older practitioner will be forced to accept the assignment on a par with the new graduate or refer this work. Dental societies all over the country have given their members opportunities to hear lectures and see clinics on the latest methods and developments in the field, and so the profession moves into a new and greater field of prevention. Lay education through the newspaper, radio, and more important, the state dental health educational program have given dentistry for children a tremendous boost. The future is indeed encouraging both for the dental profession as well as for the growing generation.

THE EXAMINATION OF THE CHILD PATIENT

The question may logically be asked, "What constitutes an adequate examination for the child patient?" Some dentists think in terms of one tooth, while others record and emphasize the total number of cavities. A complete and adequate perspective cannot be obtained in any examination unless the mechanical, as well as a physiological approach is taken into consideration. In most instances this does not imply a medical check-up, but one must be cognizant of the factors of calcification, growth and development, variabilities in time of root resorption, exfoliation, and eruption. The various calcification and eruption tables and charts have certain established averages, but this does not mean a given child is abnormal if it loses a tooth too early or too late within reasonable limits. Frequently a child may be eight years of age chronologically, when in reality it may be ten or eleven years physiologically. The exact opposite may be true in that the ten year old boy or girl may have little if any resorption of the first deciduous molars thus indicating an approximate seven year old child physiogolically. In the final diagnosis and prognosis of any case with reference to the extraction or filling of a particular tooth, an x-ray is essential. A case history often is valuable in establishing probable exfoliation and eruption time in an individual case. In general, if the first foundation central erupts at three or four months of age, one may assume the probability of early eruption of the permanent teeth.

An examination always should be made in a dry field and with the finest, sharpest explorers. A dull explorer is the most expensive piece of equipment in the whole office, even more so than the finest dental chair, cabinet, or x-ray unit. A new or sharpened explorer must be utilized or only the "big ones" are checked. The finest pits and fissures should be recorded on the chart as well as the larger cavities. It is always well to check thoroughly the gum tissue adjacent to the larger decayed areas to note any evidence of a fistulus track.

*Presented at the 75th Annual Meeting of the Illinois State Dental Society, Peoria, Illinois, May 9, 1939.

All illustrations through courtesy The Blakiston Co., Philadelphia, Pa., publishers of Brauer, Boyd and Higley's Dentistry for Children.

The latter finding in most instances would indicate a periapical abcess, the result of root and canal infection. It is imperative that one be fully informed in a given case, for no satisfactory financial arrangement can be made unless the complete findings are at hand. If a tooth is marked for extraction, one must note the age of the patient, the position of the tooth in the arch, the general occlusion of the two arches, the probability of orthodontic treatment, and

Dentistry is also losing tremendous possibilities if it is not cognizant of the oral hygiene and its related factors. The child should be informed and instructed just how the teeth should be brushed. If the dentist can exemplify sincerity of purpose in a routine prophylactic home care and successfully impress his patients and parents of its importance he will have done much, not only in future returns to his own practice, but in creating a greater appreciation for dentistry.

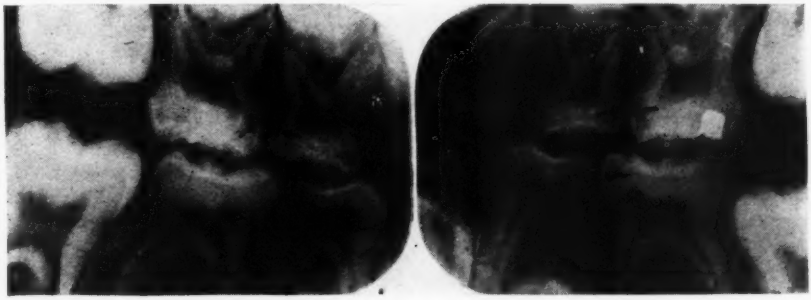

FIG. 1.

Boy, aged 5—found eight class two cavities, seven via the bite-wing x-ray. At least two out of every three child patients have hidden areas of decay.

through x-ray interpretation determine the relative calcification of the underlying tooth. Having all of these factors in mind one may or may not advise a space retainer.

Since the dentist becomes the guardian of the child's mouth and future dental problems, it certainly would be to his advantage to know the type of occlusion the patient possesses, also any habits that may be destroying the symmetry of the face. If and when any abnormal condition presents itself, the parent has every right to be informed, and some disposition made of the case. Every dentist should be interested in the minimal nutritional requirements of the growing child, and if his patients need dental nutritional information, there is no reason why it should not be presented.

Thus having gone over the mouth, it is necessary that the parent be shown the exact needs and general condition of the child's mouth. Many dentists have been failures in the field of pedodontics because they have not taken into consideration and confidence the parent, a really interested party, and, incidentally, the one who pays the bills. It is for this reason that the examinations conducted in the dental office are recommended, and that school examinations as such are usually a waste of time. The parent or some responsible party *must* be on the scene to understand and evaluate the services necessary for the child. Statistical surveys within the school are very valuable and necessary, but they should not take the place of an office examination.

It is the writer's practice to make as complete a survey as possible in a dry field, discuss the case with the parent, and then inform them that if a complete and adequate examination is desired, a full mouth x-ray should be taken as well as bite-wing films. It has been found that out of every three child patients that enter an office, two of them have hidden areas of decay that can best be detected by the bite-wing x-ray method.

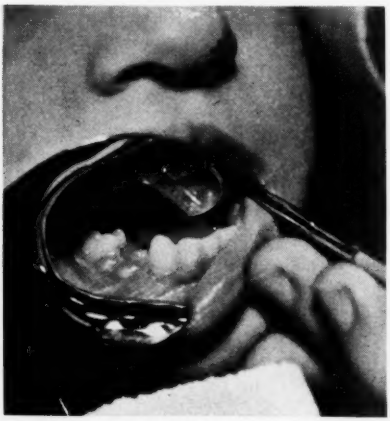

FIG. 2.

Girl, aged 3, with infected lower first foudation molar (deciduous molar). Note the gum boils and retained, infected roots. These roots should be removed immediately and a space retainer inserted. The first bicuspids do not erupt in the average case until the age of 9 to 10, thus this space must be retained, and function if possible.

THE YOUNG PERMANENT TEETH: A PROPHYLACTIC APPROACH

There is no finer approach to the practice of dentistry than through the adherence to the principles of prophylactic odontotomy. Comparatively few permanent molars would ever be extracted if the pits and fissures were really filled, and bite-wing x-rays were taken systematically.

The permanent molars erupting in the posterior part of the mouth always must be under observation. Sometimes these partially erupted molars have pits and fissures of considerable depth, and on many occasions the decay has already penetrated the dento-enamel junction. This latter factor is true on the buccal as well as the occlusal. There is no reason why a bit of novocain cannot be injected in this loosely overlying flap which can then be removed to allow for a real prophylactic filling. In too many cases have these areas passed the point of prophylaxis, and if one advises the patient to wait until the tooth erupts farther, there may develop a cavity of considerable depth. Then too, there is always the probability that the patient will not return at the desired interval, and the result is often a broken down tooth.

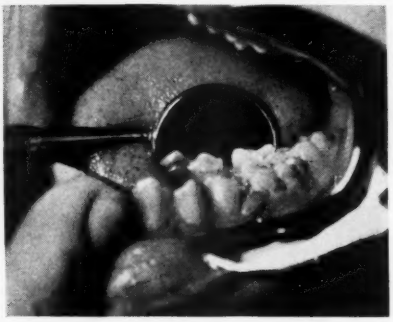

FIG. 3.

Retained foundation molar roots frequently deflect the erupting bicuspids lingually or buccally, or create a space as in this figure. All roots must be removed to allow the normal eruption of the bicuspids.

Comparatively few permanent teeth with pits and fissures need to be sectioned by any operator until he is convinced that real preventive dentistry lies in the early interception of these developmental defects. Too many of these apparent quiescent areas already have decay at the dento-enamel junction, and it is humanly impossible to detect with the naked eye the activity at the base of these seemingly innocent areas. It is for this latter reason particularly that the writer does not advocate silver ni-

trate in the treatment of deep pits and fissures. The application of any medicament does not eliminate the defect, therefore a well organized cavity preparation is advised just within the dento-enamel junction. A round bur, size No. ½ to No. 1, is used initially, followed by a No. 33½ to No. 34 inverted cone bur to complete the cavity. This is simple, direct, efficient, and destroys a minimum amount of tooth structure. The cavity is then filled with amalgam.

It has been advocated by some operators that these pits and fissures be polished out with a stone of suitable size, but this technique lends itself successfully to few teeth. Others have covered the developmental defects with cement, but this approach does not eliminate the vulnerable area, nor does it permit the examination of the base of the groove for dento-enamel junction decay.

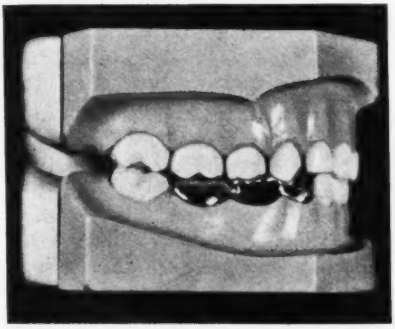

FIG. 4.

A functional space retainer supplying the first foundation molar. Cast overlays are prepared on the second foundation molar and cuspid. An .040 tube is soldered to the mesial of the posterior attachment (toward the buccal aspect of the mesial), into which fits an 18 gauge wire or .040 wire. An 18 gauge wire is soldered to the post which fits into the tube to run along the occlusal. To this latter occlusal aspect may be added inlay wax, thus to cast and develop an occlusal which will allow for appreciable function.

THE DEEP SEATED DECAY

In all cases where the decay has penetrated to considerable depth, exposure of the pulp is probable. Having gained access by the removal of the unsupported enamel, *all* of the infected dentin is removed with a spoon excavator. If a pulp exposure has not been evidenced, the remaining dark affected dentin is silver nitrated with Howe's ammoniacal solution. The silver nitrate is allowed to remain for approximately a minute and then precipitated with oil of cloves or eugenol. An excellent procedure is to follow this latter treatment with a cavity lining, and then the cement of choice is placed preparatory for the metallic filling. Having thus protected the pupal tissue the odontoblasts will have an opportunity to develop secondary dentin.

Upon the removal of the soft dentin often a horn of the pulp will be exposed, and in this instance one may think in terms of a partial pulpectomy. The latter treatment is highly practical and successful wherein the root ends of the permanent tooth have not been developed in their entirety. If the root ends are wide open as during the process of development, a very generous supply of blood will be afforded this area, which gives the operator a physiological advantage over a tooth with roots that have

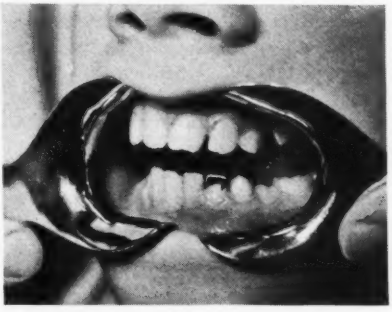

FIG. 5.

A badly broken down permanent incisor after four to six weeks' observation may be restored by a ¾ spring basked crown. Pin holes are made with a ½ round bur in the mesial and distal dento-enamel junction into which fit the 20 gauge posts which are cast directly to the ¾ crown.

been fully developed. It requires from three to four years for the average roots to be calcified completely, but once these are formed the usual treatment is a full pulp therapy. The author has a number of successful partial pulps in teeth wherein the roots have been fully formed, but has not a sufficient number to state the percentages of success or failure in such treatment.

Having created an exposure of the pulp in the young permanent tooth, the nerve supply to the area is blocked off with novocain. The tooth is isolated with a rubber dam, and the area is painted with iodine. A sterile No. 558 fissure bur, or a No. 37 inverted cone bur is employed to open wide the coronal area to the bulbus portion of the pulp. A sterile No. 7 or No. 8 round bur is used now to remove the coronal area of the pulp. This latter procedure also may be done with suitable sized spoon excavators. In most of these cases there will be a hemorrhage which may be controlled with an application of phenol liquid. Having controlled the hemorrhage one must be sure that no blood clot remains over the pulp stump, and then the bulbous part of the chamber may be phenolized. A soft paste may be employed as zinc oxide and eugenol, or any other paste of choice that does not harden, over which is placed a cement and the metallic filling.

It is expected in the above cases that the pulp stumps remain vital, and that the odontoblasts continue to function so that the remaining portion of the root will develop to its intended length. This technique is most useful in any of the permanent teeth, and is employed in the fractured anterior teeth if the pulp has been exposed.

FILLING MATERIALS

There is little if any necessity for the insertion of gold foil in the young permanent teeth, although it is the filling of choice in the older fully formed and completely erupted teeth. In the upper first permanent molar the author prefers silver amalgam wherein the transverse ridge is not involved. The same filling is used in all small grooves and pits, but in the lower first permanent molar where all of the grooves are involved a gold inlay is preferable.

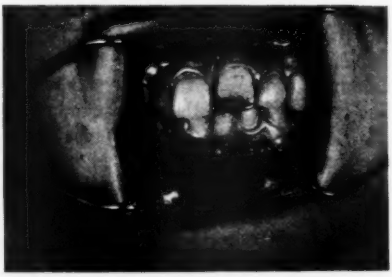

FIG. 6.

A ¾ spring clasp crown, the labial to be filled with silicate. The only preparation is the removal of the mesio-distal enamel with a "Joe-dandy" disk, and sufficient lingual enamel to allow for 30 gauge wax. A hard spring clasp gold is used in these castings.

The interproximal spot filling on the permanent teeth is a debatable procedure, and it has been the writer's practice to develop the mesio-occlusal or disto-occlusal cavity, which is filled with amalgam until the tooth fully erupts.

Small lingual pits on the laterals are filled with amagam until the tooth is completely formed and erupted. The small interproximal cavities on the anterior teeth are spot filled with silicates. The larger anterior (class three) cavities are developed into an inlay preparation, the latter being made to draw from the lingual. The inlay is the most positive, efficient, and practical restoration one may place because it affords fine margins, good contact, and normal interproximal embrassures.

CONCLUSIONS

Dentistry for children because of its universal need, in the main will always be within the realm of the general practitioner. Social and economical trends

warrant a keen consideration of children's dentistry on the part of every practitioner. Some satisfactory disposition must be made of the child patient.

The practice of preventive principles embodies the mechanical as well as the biological approach, and the latter factors must be kept in mind when making a diagnosis and prognosis of a case.

Chairman Department of Preventive Dentistry and Director of the Bureau of Dental Hygiene, State University of Iowa, Iowa City, Iowa.

CLINICAL OBSERVATIONS AND RESEARCH INVESTIGATIONS OF MODERN DENTURE BASE PLASTICS*

By CARL W. GIELER, D.D.S., M.S.D.

A REPORT on denture base materials is always of vital interest to the dental profession for it is constantly searching for the ideal material, or at least a material that has several advantages over its predecessors. With respect to denture base plastics this is especially true of the newer translucent pink materials. The changes in types of materials during the past few years have been extremely rapid, and while there have been many discouraging results with some of these pink denture base plastics, there have been a few that have served quite well, even though they were defective in some respects. The introduction of the methyl-methacrylate resins for use as denture base plastics has deeply stirred the interest of the profession because of the many almost unbelievable claims made for them, and consequently a report of the difference between these and other plastics should be most welcome at this time.

There were many failures with the use of the synthetic resins and cellulose products of the past, and they were extremely disappointing to patients, the profession, and the manufacturers. However, the profession and the manufacturers have had an opportunity to derive much valuable information from these failures, with the result that materials are more carefully tested both in the laboratory and in the mouth before they are available for purchase on the market.

It is interesting to note the close cooperation that now exists between the manufacturers, the dental schools, and the members of the dental profession. As a result, many of the materials are now placed on the market only after a series of clinical and laboratory tests have been performed over a reasonable period of time. These materials are first submitted to representative practitioners who put them through a series of functional tests, i. e. dentures are constructed for patients by these practitioners who follow up these cases for a considerable period of time, and then make clinical reports to the manufacturers. Also, materials are often submitted to dental schools for scientific tests. Procedures such as these are responsible in a great measure for the superiority of many of the newer dental materials.

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The dental profession is fortunate in securing the facilities at the Bureau of Standards at Washington, and also the reports from that source by the American Dental Association Research Associates. There have also been a number of other research workers who have made valuable contributions in this field. Dentists have often bewailed the fact that the research workers do not always point out the best materials. It is not always possible for these men to accurately foretell what material will serve best, but they do present a report of various physical properties that they find and offer their interpretation of them. The individual who is quite definite and knows all about materials is occasionally the salesman; and it might be added that his viewpoint is sometimes slightly prejudiced.

During 1934 a research program was started at the Bureau of Standards with the object of developing a series of tests which aid in determining the usefulness of denture base materials. Because it has not yet been established just what physical properties are necessary for satisfactory denture base materials, no definite standardized tests have as yet been developed. However, the American Dental Association Research Associates at the Bureau of Standards are working on this problem, and no doubt some specifications will be set up soon.

This report will deal with clinical and laboratory observations, and a brief interpretation of the data on the physical properties of some of the newer denture base plastics. The research data from which conclusions will be drawn are part of a research program being carried out at the Northwestern University Dental School testing laboratories. Wherever possible, a comparison will be made between the various types of materials rather than of the individual products studied.

Most of our prosthetic text-books emphasize a number of requirements that must be met in order that a material be satisfactory in every respect as a denture base material. Some of the requisite properties of such a base are the following: it should not be injurious to the mouth tissues; it should be odorless and tasteless, and free from action by oral secretions or food products; it should have esthetic qualities; it should have sufficient strength to withstand the masticatory forces; it should hold the porcelain teeth firmly and should not permit seepage around the collars; it should take and maintain a high polish; it should be easily manipulated and easily repaired without the use of expensive equipment; it should neither warp nor shrink; it should be a reasonably good conductor of thermal changes; and lastly, it should be reasonably light in weight. We know that no material meets all of these requirements, but we do want to know which material meets most nearly all of these requirements.

TABLE I

Material	Type	Manufacturer
Crystolex Pink	Methyl-methacrylate resin	Detroit Dental Mfg. Co.
Vernonite Pink	Methyl-methacrylate resin	Vernon-Benshoff Co.
Vernonite Transparent	Methyl-methacrylate resin	Vernon-Benshoff Co.
Densene	Phenol-formaldehyde resin	Cosmos Dental Products, Inc.
Duratone	Phenol-formaldehyde resin	Steco Dental Mfg. Co.
Luxene 37	Phenol-formaldehyde resin	Bakelite Dental Products, Inc.
Exelon	Acrylic-vinyl resin*	Exelon Mfg. Div.
Vulcanite	Dark elastic	Claudius Ash's Sons & Co.

*Type of compound not known.

The materials studied are listed in Table I. All products were purchased on the open market with the exception of the methyl-methacrylate resins which were not available for purchase at the time the research started.

Comment on Test Data

Because a description of the testing procedure will be published in the Journal of Dental Research the following brief description of the results of the tests will suffice for this report.

So far as tensile tests are concerned the methyl-methacrylate resins appear to be equal to vulcanite. Their resistance to impact is about one-half that of vulcanite, and their set is less than one-third that exhibited by vulcanite. The three methyl-methacrylate resins appear equal in nearly all respects so far as their tensile properties are concerned within the limits of experiimental error.

Of the phenol-formaldehyde resins tested, Luxene 37 is the outstanding material so far as tensile properties are concerned. This material is less flexible, more resilient (within the elastic limit), weaker under tensile stress, and more brittle than vulcanite. Densene and Duratone are definitely inferior. All of the phenol-formaldehyde resins rate low so far as impact strength is concerned, and of these Luxene 37 is strongest.

Exelon differed from the other materials in tensile properties. Its ultimate tensile strength is nearly equal to that of vulcanite, but it is less flexible. With respect to the modulus of resilience data it is superior only to two of the other resins. Its impact is slightly less than

Table II

Material	Specimens Tested No. of	Impact Strength Cm–Kg / Cm² Average
Olive base rubber..	5	23
Exelon	5	18
Vernonite Transp't.	5	13
Crystolex Pink....	5	11
Vernonite Pink....	9	10
Luxene 37	5	8
Duratone	7	3
Stryker's Densene .	7	3

Table III

Comparison of the Physical Properties of Denture Base Plastics

Material	Proportional Limit (lbs./sq. in.)	Modulus of Elasticity (lbs./sq. in.)	Modulus of Resilience (in. lbs./cu. in.)	Tensile Strength (lbs./sq. in.)	Set 50 mm. gage (per cent)
Olive Base Rubber....	3900 ± 100	350,000	22	7900 ± 100	.7
Vernonite (Pink)	3900 ± 100	330,000	23	6900 ± 200	.1
Vernonite (Clear) ...	3900 ± 100	360,000	21	7900 ± 200	.2
Crystolex (Pink)	3800 ± 100	340,000	21	7300 ± 200	.2
Luxene 37 .....-...	5600 ± 300	520,000	30	5600 ± 300	..
Exelon	4200 ± 300	580,000	15	7700 ± 100	7.4
Duratone	2800 ± 400	380,000	11	2800 ± 400	..
Densene	2200 ± 200	500,000	5	2200 ± 200	..

Table IV

Sorption of Water by Denture Base Plastics at Room Temperature

Material	Increase in weight per square centimeter of surface area: 2 Days mg/cm²	5 Days mg/cm²	9 Days mg/cm²	15 Days mg/cm²	22 Days mg/cm²	33 Days mg/cm²	44 Days mg/cm²
Vernonite (Clear)	.07	.10	.14	.18	.19	.21	.21
Vernonite (Pink)	.06	.11	.15	.17	.18	.20	.21
Crystolex (Pink)	.07	.10	.14	.18	.20	.21	.22
Exelon	.02	.03	.04	.05	.06	.06	.07
Duratone	.03	.04	.06	.08	.09	.12	.13
Densene	.03	.04	.07	.09	.09	.11	..
Luxene 37	.02	.04	.05	.06	.06	.08	.08

that for vulcanite, but it is greater than any of the other materials tested.

So far as the tests for water sorption are concerned, the methyl-methacrylate resins had the greatest increase in weight of the materials tested. The clinical application of water sorption tests in general is not understood at this time.

The color life of the methyl-methacrylate resins, as tested by exposure to sunlight, is much better than that of the phenol-formaldehyde resins. No conclusions can be drawn as to the color life of Exelon because of the short period of time it was tested.

CLINICAL AND LABORATORY OBSERVATIONS

One of the first considerations in the selection of a denture base material is its freedom from injury to mouth tissues. So far as clinical observations are concerned, none of the materials tested should be injurious to the mouth tissues. There have been occasional reports in which a description was given of a patient who had an allergy towards some denture base material. However, such cases are quite rare. Vulcanite has frequently been accused of causing a sore mouth condition, yet it has never been definitely proven that the material itself was at fault excepting when poisonous pigments were used to color it as was done many years ago. Improper relief areas, poor adaptation to the tissues, and faulty occlusion could be responsible for such a condition. Furthermore, lack of oral hygiene by the patient undoubtedly has often caused irritation of the oral mucosa. Any of the other materials, when used as a denture base, may cause similar mouth disturbances under like conditions. Wright, in a paper read at the Cleveland meeting of the International Association for Dental Research, March 19, 1939, described the response of the oral tissues to vulcanite as compared to that of the methyl-methacrylate resins. It might be gathered from his report that the methyl-methacrylate resins are less injurious to mouth tissues in the initial adjustment period than is vulcanite. Why this is so is a matter of speculation. It might be possible that the high polish that these resins take and keep are responsible for the improved tissue reactions.

A complaint frequently heard from patients is the difficulty with which vulcanite dentures can be kept clean, and in some cases patients describe a sour taste that is associated with this material. While the phenol-formaldehyde resins are better in these respects, yet they are not entirely free from these faults. So far as the methyl-methacrylate resins are concerned a sharp taste and odor has been observed in some cases by patients when a denture of this material was inserted immediately after processing and polishing. However, these conditions were not observed after the patient had worn the denture for a few days. Patients wearing dentures made from these resins frequently describe the ease with which they are kept clean, especially those patients who have previously worn vulcanite dentures.

One of the main reasons for the extensive investigations into denture base materials is the search for a material that has all of the good qualities of vulcanite and none of its poor qualities; thus, esthetics is usually one of the first considerations. Many of the materials that were placed on the market had a beautiful gum-like color, but after they were worn for a period of several weeks or more looked almost as bad, and some worse, than vulcanite. This was especially true of the earlier phenol-formaldehyde resins. Luxene 37, one of the newer resins of this type, has been greatly improved in this respect; but in some mouths it still discolors badly. In an observation of about one hundred

cases of the methyl-methacrylate resins, only two dentures were stained and in these cases the porcelain teeth were similarly stained. So far as the actual pink gum tints are concerned with these materials, it seems to the author that the methyl-methacrylate resins have somewhat better esthetic qualities than the phenol-formaldehyde resins; however, the likes and dislikes so far as esthetics is concerned is a matter of individual preference, and each dentist must select the material of his own choice.

The research conducted with respect to color life is in agreement with the clinical observations of the various materials tested; thus it should be noted that the methyl-methacrylate resins should maintain their original color much longer than the phenol-formaldehyde resins in many cases.

In an effort to obtain an ideal esthetic result, strength has been sacrificed with many of the materials used in the past. Some of the phenol-formaldehyde resins of the past have had a tensile strength less than one-third that of vulcanite; however, one of the more recent resins of this type, Luxene 37, has been greatly improved and has a tensile strength more than one-half that of vulcanite. All of the materials tested with respect to impact forces were weaker than vulcanite. Other investigators noted that vinyl resins exhibited greater impact and tensile strength than vulcanite; however, this type of material in actual service under masticatory forces frequently failed after one or two years. It was thought that this failure was due to the stress induced into the material during the molding into a denture base. It should be interesting to watch the behavior of the acrylic-vinyl resin that is distributed in the form of blanks. This material is processed very much like the vinyl resins. The methyl-methacrylate resins have stood up quite well in actual service, and so far as laboratory tests are concerned their tensile properties are in many respects equal to that of vulcanite. Their impact strength is only one-half that of vulcanite; yet it is two or three times greater than the impact strength for most phenol-formaldehyde resins available to the profession.

It was noted that with the vinyl resins teeth frequently loosened from the base material, and in some cases actually pulled part of the material away with the teeth. In many of these dentures the base material immediately adjacent to the teeth turned black because of the seepage of fluids between the material and the teeth. None of the methyl-methacrylate resins or the recent phenol-formaldehyde resins failed in this respect. A difficulty that was encountered at first, but is no longer a serious problem, is the mesio-distal check in the occlusal surfaces of the posterior teeth. If these materials are handled exactly according to the manufacturer's directions, very little trouble should be experienced along this line.

In order that a dentist may process his own denture base materials, it is necessary that the equipment used for such materials be of reasonable cost. Usually it is necessary to have in his laboratory a vulcanizer, a press, and several flasks. So far as these plastic materials are concerned, the initial expense for processing equipment is relatively small.

If a material is extremely difficult to handle, the dentist, after several trials, will give up in disgust and send this work to the commercial dental laboratory. In the author's opinion it seems that better service can be rendered to the patient if much of the laboratory work is done by the dentist himself or his assistant. The dentist has a direct interest in the welfare of the patient; he is familiar with the oral conditions and facial characteristics that he must deal with, and consequently can modify and develop the artificial restoration to

a more satisfactory degree than the commercial laboratory. Thus a very difficult laboratory technique is undesirable since it is then necessary to send this important work to the laboratory.

The processing of Exelon by the oil bath technique, while not difficult, is extremely messy and unless caution is exercised by the dentist most of his laboratory will be coated with oil. One of the major difficulties with Luxene is the packing process of the Luxene powder in hot, humid weather. One is very apt to find voids in the completed denture when carried out under these conditions. Furthermore, it is not possible to test-pack this material and therefore a great deal will be wasted in over packing. The vulcanizer for this material must be in perfect working condition to avoid over or under curing.

The methyl-methacrylate resins are probably easier to manipulate than any of the other materials tested so far as packing into the flask is concerned. This type of material can be test-packed. Care must be exercised, however, to avoid closing the flask too rapidly under extreme pressures, or to heat the material too rapidly during processing. When these precautions are observed, the checking of teeth is minimized. One of the manufacturers of this type of material has provided a liquid which is an inhibiting agent and is supposed to retard the reaction of the resin during the curing process. According to the manufacturer, when this material is applied to the tin foil adjacent to the teeth and on to the gold pins of the teeth the danger of checking teeth is avoided. The wide range of time and temperature required in processing the methyl-methacrylate resins makes it unnecessary to use a vulcanizer. Boiling water can be used as a means for heating the flask and curing the material. If these materials are processed in boiling water only, then the artificial stone that is used in making the cast must be mixed somewhat thinner than usual because this low temperature does not break down the plaster or stone to any appreciable extent. Whenever a case presents with extreme undercuts, it is advisable in processing to use the vulcanizer in order to break down the investing material, and when this is done the tinfoiling of the wax model denture and cast must be done with great care. The regular type of vulcanizing flask may be used in investing a case for this type of resin; however, if the ejection type flask is used it will save much time and effort in removing the material from the flask after curing. The flasks, of course, should be clean and the inner surfaces may be coated with a thin layer of vaseline. Another procedure which will facilitate removal of the investment from the flask is to sectionally invest the wax model denture in the upper half of the flask. This may be done by carrying the model plaster or other investing material to the level of the teeth and permitting it to set, then a separating medium is applied and the remainder is filled with the investment.

The ease with which a denture may be repaired is an important consideration. It may be stated without hesitation that the methyl-methacrylate resins offer a means of repair that is easier and quicker than any of the other materials tested. Phenol-formaldehyde resins, vulcanite and vinyl resins dentures have been successfully repaired with this material.

Those dentists who desire rigid, well fitting base plates in taking jaw relation records will find that the methyl-methacrylate resins serve quite well. Not only can the records be taken more accurately than with the shellac type base plates, but the fit of the bases can be observed in the mouth before the dentures are actually completed. In other words, the dentist will know beforehand how the finished dentures will meet the requirements of stability and retention.

Either the transparent or the pink material may be used for this purpose. If the transparent material is employed as a base plate, regions of overcompression of the underlying tissues may be observed and the base plates may be corrected. In making the change from the wax model dentures to the finished product it is not necessary to discard the base plates. The new material can be added to the roughened base plate and a strong union will result.

None of the plastic materials will conduct thermal changes to or from the oral tissues as well as metal bases, and this is one disadvantage that all of these materials have. However, this seems to be a minor disadvantage in most cases. While this paper deals primarily with denture base plastics, it might be well to consider denture bases with respect to the property of thermal conduction. Where metal bases can be used they are probably more desirable as denture bases than the plastics so far as thermal properties are concerned. Certainly the patient will be able to appreciate temperature changes more readily than with one of the plastics. Furthermore, it is the opinion of some authorities that metal base dentures are more conducive to good mouth health. If this is so, then the ideal artificial denture would be a synthetic resin and metal combination.

One of the requirements of a denture base is that it will neither warp, shrink, nor expand after it has been processed. No accurate data is available at the present time in this respect. In observing one of the phenol-formaldehyde resins and methyl-methacrylate resins it was noted that in some instances dentures that had been worn for a month or six weeks could not be placed upon the mounting cast of the articulator without a great deal of force. These few observations could not be interpreted, at least at the present time, as warpage because it could not be determined if the plaster cast had warped. However, in dealing with vulcanite dentures changes of this kind were seldom noted.

Probably all dentists who construct artificial dentures have one important question in mind. How dependable is one of these newer materials over a long period of time? This is a question that cannot be definitely answered because materials must be observed in the mouth over a reasonable period of time. It might be stated that the methyl-methacrylate resins as a group have served in many mouths over a period of about three years without serious faults. Luxene 37 has been used for several years with good results in most, but not all, clinical cases. Because of the lack of clinical experience with the other synthetic resins no mention can be made so far as life value is concerned.

It is not intended that what has been mentioned in this report should be interpreted as a recommendation of any specific material. An attempt was made to evaluate all of these materials so far as it was possible from the standpoint of scientific investigations and clinical and laboratory observations. It is realized that many points mentioned in this paper could be elaborated on at great length, but it is not within the scope of a paper of this kind to discuss minute details, but rather to present information that is of a general, but important, nature.

Summary and Conclusions

1. This is a report dealing with some physical tests and clinical and laboratory observations of various denture base materials.

2. Physical tests were made of three methyl-methacrylate resins, namely: Vernonite transparent and pink, and Crystolex pink. The three phenol-formaldehyde resins tested were Densene, Duratone, and Luxene 37. An

acrylic-vinyl resin, Exelon, was also tested. Dark Elastic rubber was used as a basis for comparison.

3. Clinical and laboratory observations were made on Luxene 37, Vernonite transparent and pink, Crystolex pink, and vulcanite.

4. According to the author's interpretation of physical tests combined with clinical and laboratory observations, the methyl-methacrylate resins should be superior to the other materials tested.

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SUSPENDED MAXILLARY DENTURES

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FOR RETENTION of artificial dentures on the edentulous upper jaw, three fundamental methods have been recorded. These are: 1. intermaxillary springs; 2. close adaptation without special retention device; and 3. mechanical suspension from the maxillary tissues. Doubt has been expressed that dentures suspended from the upper alveolar process have ever existed; and histories of dentistry and of dental prosthesis, especially in English, have given little or no attention to such dentures. It is apropos, therefore, that a detailed study should be made of them—at least as a matter of curiosity.

A suspended denture is, essentially, one supported by wires or ligatures passed through perforations made in the maxillary tissues. Whether *suspended* is the best term by which to designate this kind of restoration, may perhaps be questioned. All dentures retained by close adaptation, it has been objected, may also be regarded as suspended from the maxillary tissues, and in the full sense of the word, our modern dentures are suspended, though by no mechanical attachment. Delabarre, 1820, classified all methods of retaining prosthesis known up to his day.[1] These consisted of ingraftments, coaptators, compressors, attractors, spring reactors, and stabilizers. He discussed the means of suspending dentures under the head of *vertical suspensive attractors,* and this term seems logical though a bit pretentious.

As to the historical existence of suspended dentures, there can be no uncertainty whatever. The earliest mention found in the literature is by the celebrated Pierre Fauchard, "Father of Dentistry," in 1728.

"After having communicated to the public so many proper means of substituting artificial teeth," he wrote, "after having given methods and circumstances founded on my own experience and sufficient to take care of any sort of case, I have reason to hope that several abuses which are practiced daily will be corrected, and that no one will now think of piercing the gums from one side to the other, to pass points through them, and to suspend from them an ivory piece consisting of several teeth in order to replace the incisors and canines of the upper jaw.

"The points which hold this ivory piece are bent almost to a hook, pierce the base of the two teeth in the middle of the artificial piece, and by being threaded through the gums, thus suspend the artificial teeth in the manner of ear pendants, in such a way that they are, so to speak, floating teeth, which obey, not only the impulses of the tongue, but

[1]Delabarre, C.-F. *Traité de la partie mécanique de l'art du chirurgien-dentiste.* Paris, 1820, pp. 410-413.

those of the breath as it enters and goes out of the mouth."[2]

It was not new, however, in Fauchard's day; and he implied in the passage quoted that even then it was distinctly *passé*. Indeed, this method, since it is the most primitive, may very well have been, for upper dentures, the earliest of all retention devices.

The latest mention found, outside of some modern historical accounts, was by the excellent French author, Desirabode, in 1843.[3] Within this span of one hundred and fifteen years, at least ten other writers upon dentistry spoke of it. These included dentists of the first rank: Gräbner, inventor of the "calendar of dentition" (1768);[4] Beaupreau, well-known Parisian dentist (1769);[5] Jourdain, the founder of oral surgery as a specialty (1771);[6] Gallette, army surgeon and dentist of Mainz (1813);[7] Duval, member of the Academy of Medicine and of the Academy of Surgery, and probably the most learned dentist of all time (1813);[8] Fournier, distinguished surgeon, editor, and contributor to medical journals and encyclopedias (1814);[9] Laforgue, famous dentist of Nancy and Paris;[10] Delabarre, brilliant prosthetist, also famous for his radical theories (1820);[11] Josiah F. Flagg, American pioneer dentist (1822);[12] and Ringelmann, professor at Wurzburg (1824).[13] Three of the authors wrote in German; one was an American; the rest were French. No mention of suspended dentures has been found in the British literature.

It is not to be thought that the suspended denture was merely an ingenious invention, designed but never executed. Fauchard recorded one case of which he had knowledge; Beaupreau made dentures of this sort for two patients, concerning whom he wrote; Loudet, in the early nineteenth century, made nine or ten, of which Gallette had seen at least one, apparently, worn in the mouth; Delabarre knew of several persons for whom such dentures had been made, and he had seen two placed by "an old and excellent practitioner."

In July, 1769, Beaupreau, a well-known dentist of Paris and member of the Société de Chirurgie, announced in the *Journal de Médecine*, his use of a suspended denture, as an innovation. At first sight this claim is a bit surprising, inasmuch as Beaupreau was acquainted with the passage about the suspended denture in Fauchard, and gave the page reference in Volume 2 of the 1728 edition. Certainly, he could not have intended to claim priority over a procedure announced forty-one years earlier; for, since he was still living in 1789, and was apparently admitted to the surgical fraternity only in 1760,[14] he could hardly have been old enough in 1728 to be the author of this operation. The difficulty can be explained away only on the assumption that Beaupreau claimed his procedure to be different from that described by Fauchard. Such an interpretation would be in harmony with the

[2]Fauchard, P. *Le chirurgien dentiste.* Paris, 1728, vol. 2, pp. 282-283.

[3]Desirabode, A.-M. *Nouveaux éléments complets de la science et de l'art du dentiste.* Paris, 1843, pp. 702-705.

[4]Gräbner, C. A. *Gedanken über das Hervorkommen und Wechseln der Zähne bey Kindern.* Langensaltza, 1768, p. 58.

[5]Beaupreau, C. G. "Lettre à M. Cochois." In *Journal de médecine, chirurgie, pharmacie,* etc., 1769, vol. 31, pp. 77-79.

[6]Jourdain, A. L. B. B. *Le médecin des dames.* Paris, 1771, pp. 295-296.

[7]"Dents artificielles. Extrait d'une lettre écrite dernièrement à M. Duval par M. Gallette." In *Journal général de médecine,* etc., 1813, vol. 47, pp. 224-226; and Ringelmann, K. J. *Der Organismus des Mundes.* Nürnberg, 1824, pp. 548-554.

[8]"Dents artificielles. Extrait d'une lettre . . . par M. Gallette." *Loc. cit.*

[9]Fournier. *Dictionnaire des Sciences Médicales,* 1814, vol. 8, p. 393.

[10]For Laforgue's opinion, the author has relied on Ringelmann, *loc. cit.*

[11]Delabarre. *Loc. cit.*

[12]Flagg, J. F. *The Family Dentist.* Boston, 1822, p. 79.

[13]Ringelmann. *Loc. cit.*

[14]Dagen, Georges. *Histoire de l'art dentaire en France.* Paris, p. 343.

fact that, in speaking of the unfavorable results which Fauchard ascribed to the use of the suspended denture, Beaupreau remarked parenthetically that the untoward consequences were "as one might expect." A comparison of Fauchard's description of the method of retention with that set forth by Beaupreau reveals a difference in that Fauchard mentioned piercing the gums only; whereas Beaupreau detailed his piercing of the alveolar process near the reflection of the lip, between the central and lateral incisors, "in the direction of the floor of the palate." In his first case this was done very easily, because, as he said, the bone was spongy. In the second case, he had considerable difficulty because of the hardness of the cortical plate and the fact that he encountered a root fragment. Obviously, Beaupreau interpreted Fauchard's operation as involving the gum only, and possibly he was right. Desirabode (1843) also seems to have thought that this interpretation was at least possible. Gräbner (1768) probably had in mind the same operation as had Fauchard, for he said, "It is an erroneous idea, as many believe, that such a denture must be fastened through the gums; and that other artificial teeth cannot be otherwise placed unless holes are made in the gums where they are to stand."

Suspended dentures were reintroduced as a new thing in 1813, when Gallette of Mainz announced that Loudet, a dentist of Karlsruhe, had made such a denture for a lady in 1812, and had since constructed nine or ten others. Loudet claimed that the operation of perforating the maxillary alveolar process in order to support dentures had been employed first by Chambon, a dentist of Lyons, who was now dead. Fournier gave further publicity to the method by mentioning it in the eighth volume of the *Dictionnaire des Sciences Médicales.* Controversy immediately arose as to the novelty of its use. The famous Duval pointed out that it had been employed by Beaupreau forty-four years earlier; while Laforgue declared that Chambon, if he had ever employed it, had remained silent on the subject, because Beaupreau had been his master, and because both of them had come to the conclusion that the operation should be abandoned.

Whether *complete* upper dentures were ever suspended from the maxilla by this method is doubtful. Fauchard spoke of "an ivory piece consisting of several teeth to replace the incisors and canines." Beaupreau indicated that, in one of his cases, the suspended denture was "of great extent." In another case, the denture apparently extended from somewhere in the anterior part of the mouth to one of the molars. Jourdain, alluding to Beaupreau, declared that the latter "thought he could, without danger, pierce the bone of the jaw in order to attach to it a *complete* denture with gold wire." Thomann, a contemporary German historical writer, asserted in 1922, with regard to suspended dentures, that "up to the present day, this sort of retention is to be found for complete upper dentures."[15]

Suspension was combined, by Beaupreau at least, with other methods of retention. In both cases cited by him, posterior retention of the denture was secured by some sort of attachment to a tooth. In one case, the denture was fastened to a tooth on either side of the jaw; and in the other, to a tooth in the back of the mouth on one side.

The procedures of Beaupreau's operation require no further elucidation, except for mention of his instrumentation. "The ease with which I did the first operation," wrote Beaupreau, "and the difficulty which I met in the second

[15]Thomann. *Art und Befestigung des Zahnersatzes.* 1922, p. 6.

led me to make a sort of perforative trepan, which, by rotary motion, easily overcame the obstacles which the exterior border of the maxillary bone might offer. Moreover, it saved the patient from the effort which the operator was obliged to make in piercing with a pointed instrument, as I had done in the first two operations which I performed."

The technique of the operation was carried to its greatest refinement in the account given by Delabarre, in 1820, as he obtained it from "an old and excellent practitioner."

"The dentist determines," wrote Delabarre, "at what point the alveolar ridge is thinnest on each side; if there is a place where it is like a knife-edge, he will choose it. In order not to run the risk of penetrating the maxillary sinus, he will make the holes where the bicuspids are situated and only a quarter of an inch from the crest. A triangular drill in the form of a reamer with a twenty-fourth of an inch diameter is used for the perforation, which is accomplished by means of a drill-bow placed on the instrument. . . .

"The hole being made, a little tube of pure gold is passed within it. The two openings of the tube are enlarged so that it cannot be drawn out, either inward or outward; and into this tube the suspending ligature is inserted, which should be only moderately tight in order not to pull on the tube, for it would result in cutting everything below it. That is just what happens to the practitioner the first time that he uses this device; it is also experience which has taught him to insert tubes into the holes —the ligatures having also had the disadvantage of injuring the soft tissues."

There was considerable difference of opinion among the dentists mentioned with regard to the painful consequences and pathological sequelae of this procedure. Beaupreau and Delabarre, both declared that the perforation of the maxillary tissues caused little or no pain. Beaupreau's first patient, he said, declared that the operation "was much less painful than the extraction of teeth and that the bone was entirely insensitive." In his second case, where he met some difficulty, "the patient suffered little." Delabarre declared that "the pain, which is slight, is felt only when the gums are pierced."

On the other hand, the dentists who opposed the operation denounced it in strong terms. Fauchard asserted that the denture "plagued and tormented the gum extremely." "It is certain," wrote Jourdain, "that the pain cannot be slight when the bone is thus perforated. If good surgery assures us that the least change in the bone may be followed by serious consequences, should not perforation be equally feared? Can the effusion of the juices of the bone be regarded with an indifferent eye? Moreover, if the gold wire, as some dentists agree, cuts the teeth, which are much harder than the bone of the jaw, how can one not fear so ill-considered an operation?" Fournier wrote: "This cruel operation appears to us at least useless if it is not dangerous." Laforgue, according to Ringelmann, asserted that this operation "has received no approval, because the gums become inflamed and suppurate, because the periosteum of the process becomes the site of the disease, participates in it, multiplies and prolongs it, and because the suppuration produces a foul odor, which is most annoying, not only to the patient, but also to those who approach him." Desirabode considered the operation "just as barbarous as ridiculous."

Beaupreau, the only advocate of the operation to testify, remarked, however, "There was for some time a little suppuration; then it ceased."

It is to be observed that the dentists who condemned the operation most were those who gave no evidence of having had any first-hand experience with it. Two of the authors, Gallette and Delabarre, who were neither advocates nor violent opponents of it, expressed their views upon its effects. "I, for my part," admitted Gallette, "observe . . . that the operation has not turned out so unfortunately as might be feared from the principles of sound surgery. There occurred just afterwards only a slightly visible swelling, a slow suppuration, and a trifling pain, especially in cold and damp weather."

"I have at different times," wrote Delabarre, "met persons who would have willingly submitted to this operation, and I have known several upon whom it has been performed with success. I have seen others who have not had so much upon which to be felicitated; but, never, whatever may have been said about it, has it occasioned the least important consequence. In fact, the perforation of the bone is not painful; there is no risk of encountering the large vessels or the important branches of nerves; and the wound which results from it is much less than that which is involved by the extraction of certain teeth. . . . I do not advise it at all although I have the assurance and the proof that it may be done without danger. . . " Further on, he added that the operation is one "really more alarming than dangerous."

Nevertheless, neither Gallette nor Delabarre was desirous of assuming any responsibility for the operation. "I do not advise it at all," declared Delabarre, but as he added later on, "If we did not have other inventions, or if the person for whom the denture was intended did not care to have a spring denture, I would not hesitate to put this device into practice."

Gallette, in his announcement of this operation, wrote to Duval, "Nevertheless, I do not mean to give approbation nor disapproval of it." When Fournier, in the *Dictionnaire des Sciences Médicales,* mentioned suspended dentures, he ascribed their introduction to a dentist in Mainz. Gallette, fearing that he was the one intended, hastened to write to Fournier the following letter: "It is entirely contrary to my mind to appropriate to myself the honor of a discovery which belongs to one of my colleagues, whether it is useful or detrimental, whether a warmed-up old invention or a true innovation. As I have been only the inventor's mouthpiece, out of love for our art and with the permission of the inventor, therefore, I should so much the less wish to shoulder any discredit which might befall me when it is stated that a dentist of Mainz, without anybody's being mentioned, was the inventor. The latter lives, not in Mainz, but in Karlsruhe."

Fournier took notice of this protest in the *Journal Géneral de Médecine,* in 1814. After stating the facts, he concluded with this characteristically French left-handed apology: "Since we have erred only as to the town, and have mentioned nobody, our opinion stands."[16]

The editor of the *Journal Géneral de Médecine,* in 1813, observed that it was to be regretted that no report had been made as to whether the denture placed by Loudet was retained in place for several years.[17] Ringelmann, also, in speaking of Beaupreau's operation, pointed out that nobody had indicated how long dentures of this sort remained in place.

Nevertheless, Delabarre did say that the two patients whom he had seen had worn their suspended dentures for "some years."

Gallette, too, in 1813, at the time he announced Loudet's case, wrote: "This

[16]Fournier. *Journal Géneral de Médecine,* 1814, vol. 50, pp. 297-298.

[17]"Dents artificielles. Extrait d'une lettre . . . par M. Gallette." *Loc. cit.*

operation was done seven months ago, and nothing has gone wrong with it up to the present." Later, in 1816, he reported in regard to the same case: "The artificial denture held eighteen months, although toward the end, on account of its weight, it hung down from the jaws, because the gold wire cut through the jaw bone and gums."

As a conclusion to this account, the case reported by Fauchard is appended, in his own words: "I have learned," he wrote, "that a lady who was the subject for this fine experiment got nothing but discomfort from it; but a fortunate cough delivered her all at once of this vexatious denture by causing her to spit it out into the fire, from which it was recovered half consumed. I do not know whether the gap has since been filled or how it could have been done; but this lady must have had a very strong desire to have her mouth supplied with teeth to undergo so cruel, and at the same time, so ridiculous an operation, to say nothing of the dangerous consequences that it might have had. Indeed, I cannot understand how a dentist should have so little care for his reputation, so to expose it, especially in Paris, where there are so many skillful people of all sorts of professions, who contribute by their work to ornament this great city."

Northwestern University, Dental School, Chicago, Illinois.

THE 1939 TRANSACTIONS

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• EDITORIALS •

Better Late Than Never

The report of the Annual Meeting of the American Dental Association's Council on Dental Therapeutics, as printed in the July issue of *The Journal of the American Dental Association,* contains much of interest, but two items need added publicity for the purpose of comment. We give two quotations from the report.

QUOTATION I. "In view of the fact that many ethical dentifrice manufacturers and distributors have found compliance with the Council's regulations regarding the naming of their products inconvenient, the Council has undertaken revision of its rules of nomenclature as these pertain to dentifrices. While the Council still prefers that the name of the dentifrice developed subsequently to the formation of the Council be a proper name which refers either to the name of the firm or to some responsible individual associated with the firm, the Council will, under conditions which it may deem desirable or necessary, permit the use of names adopted according to the regulations contained in the following statement: The Council will consider for dentifrices trade names which imply no therapeutic or other objectionable claims, but which do not indicate the name of the company, and which are not the names of established lines of cosmetics or drugs of which the dentifrice may be an item."

QUOTATION II. "At the expiration of the last yearly period of acceptance, for Iodent Tooth Paste No. 1 and Iodent Tooth Paste No. 2, the Council voted to delete these products from Accepted Dental Remedies because of conflict with Council rules regarding promotion of dentifrices.

"The Iodent Chemical Company has been informed of the Council's willingness to consider Iodent Tooth Paste No. 1 and Iodent Tooth Paste No. 2 for readmission to the list of accepted dentifrices on formal submission of the products in accordance with Council rules."

COMMENT: The Council has long been criticized by many dentists of excellent repute for even considering its "Accepted Dental Remedies" an agent (dentifrice) which has no therapeutic action whatever. It has often been pointed out

that dentifrices are nothing more or less than glorified soaps not necessary to a successful cleansing of the oral cavity but merely pleasing adjuncts to the real cleansing vehicle, the tooth brush. But now, in this latest rule on nomenclature for dentifrices (quotation I), the Council boldly ignores all such criticism and openly subscribes to the paradoxical situation of a council on dental therapeutics considering for approval dentifrices with names which must imply no therapeutic action at all. To our way of thinking, it would take more than a Philadelphia lawyer to decipher the exact meaning or intent of this new rule. But perhaps its ambiguity is intended as a convenient out in case of necessity although the Council says the rule was revised because manufacturers found the old rule inconvenient.

And then, in the latest chapter of the Council's long continued story on Iodent No. 1 and No. 2 (quotation II) we find said tooth paste deleted from "Accepted Dental Remedies" until formal submission of the products in accordance with Council rules. Well, perhaps this action is better late than never, but why the intimation of more chapters to a story that has long reeked of "something rotten in Denmark"? Why not kill it and be done with it?

Many of the American Dental Association's component societies have literally thumbed their noses for years at the Council by accepting advertising in their publications of dentifrice manufacturers whose products have not been approved by the Council. We believe that this demonstration of apparent disrespect for the judgment of the Council has been due, chiefly, to the Iodent and similar tooth paste fiascos.

Lest we be considered as opposed to all activities of the Council we hasten to add that only in the field of dentrifrices do we find that it has gone astray. As long as the Council remained as expert adviser to the dental profession and the public on the contents and value of dental therapeutic agents it performed a splendid and worthwhile service but the moment it attempted to evaluate the numerous dentifrices it ran afoul of much criticism. May we suggest, as has been so often suggested by others, that the Council on Dental Therapeutics have nothing to do with the dentifrice problem. Let it suffice that the American Dental Association's Bureau of Chemistry analize the various dentifrices and declare them harmless or injurious as the case may be.

This recommendation must not be considered as a solution to the unethical advertising campaigns of some dentifrice manufacturers. This problem must be solved eventually by a proper governmental agency such as the Pure Food and Drug Commission of the Federal Department of Agriculture.

Again we suggest that the Council on Dental Therapeutics completely and finally wash their hands of having anything to do with approving or disapproving dentifrices.

Clarke E. Chamberlain, D.D.S.

It takes a good magnifying glass, a keen eye, and a knowledge of where to look to find Aurora, Nebraska. . . . Like many of the smaller towns you never hear of until some incident brings them to your attention. How long the town existed or why, we've no idea, but we do know that on April 23, 1895, Clarke Edmund Chamberlain was born there to Thad and Clara Sylloway Chamberlain.

When the baby was six years old Father Chamberlain gave up farming and moved his family to Peoria, Illinois, to be nearer other relatives and enter the farm implement business. Son Clarke attended the Peoria grade schools and then entered Manual Training High School where he was active in football and basketball. One of the high-lights of his basketball experience was playing in a game for the State Championship. During these school days he also found time to work at various jobs in clothing stores and newspaper and other offices. After graduation from Manual he attended Bradley Polytechnic Institute. About this time he decided he wanted to be a dentist and so he enrolled in Chicago College of Dental Surgery where he affiliated with the Delta Sigma Delta Fraternity. While in dental school he enlisted in the Army Dental Corps and after graduation in 1918 was stationed at Camp Oglethorpe, Ga. November of that year found him transferred to Hoboken, N. J., where as 1st Lieutenant he was on duty until his discharge in April, 1919.

Returning to Peoria he opened an office in the Central National Bank Building. For several years he served as Designated Dental Examiner for the United States Public Health Service, repairing the teeth of ex-soldiers. Later he moved his office to the Jefferson building, his present location, and continued the private practice of dentistry.

On September 19, 1919, Dr. Chamberlain was married to Miss Martha Kasjens, who had been a classmate of his at Bradley. Besides Dr. and Mrs., the Chamberlain family consists of Clarke W., age 19, a Sophomore at Bradley, Mary'nette, 17, a Senior in High School, Dorothy, 13, a Freshman in Junior High, and a dog named Zuch a pedigreed English Springer Spaniel. Clarke is very fond of his family and his home. He likes to play golf, and, during the fishing and hunting seasons, is often found at his hide-out down the river near Browning, Ill. He is a member of the Blue Lodge, Consistory, and Shrine. Although engaged in general practice he devotes a large part of his time to Periodontia on which he has presented numerous papers. He is a member of the American Academy of Periodontology.

Like most men who are active in the Dental Society, Dr. Chamberlain joined soon after graduation. He has served as Secretary and President of the local Society as well as working on various committees. In the State Society he has been active many times on the local arrangements and other committees and is now Vice President. This last year he was Chairman of the local arrangements committee. The success of the Diamond Jubilee Meeting was largely due to his efforts even though Clarke would be the last man to admit it.

E. H. M.

You Need a Vacation—*Oh Yeah?*

Say, you need a vacation! *Why?* You have been working entirely too hard lately without any breaks in your routine. *What about those Wednesday golf games and the week end motor trips?* After all, dentistry is hard work, *if you can get it, and you won't while you're on your vacation.* You've been slowing up lately and that enthusiasm you should have is lacking. *Well, you're getting older, and anyway no one feels so peppy in this hot weather.* Everyone knows that even a machine needs some rest and relaxation *but it is better to wear out than to rust out.* You owe it to yourself and family to get out of town for a while and forget business worries. *Perhaps a vacation would make you forget business worries for two weeks, but it will double your expenses while you're gone and double your worries when you first get back.* Patients don't like to have dental work done in hot weather and are saving their money for their own vacations anyway. *On the other hand, many people wait until vacation time to get their extensive dental treatments.* Oh well, a trip won't cost much; the car is in good shape and tourist's camps are cheap and easy to find. *Vacations always cost more than you planned. The tires on the car probably won't hold up and you know how the wife hates tourist's camps.* Fish are biting *but so are mosquitoes* and there are two fine fairs to visit. *Boy will they be crowded!* You'll return full of pep, eager to work again, with your hand steadier, eye clearer, and brain more alert. *Huh! You'll probably drag back with your hands blistered, your eyes bloodshot, with a headache and indigestion; you won't get back to normal for a long time.* You will see a lot of interesting things that you can talk about all winter. *Interesting things always happen to the other guy.* Everyone takes a long strenuous vacation; it is an established institution, *for the insane.* Nevertheless, you should take a vacation. *O. K. when do we start?*

M. K. H.

Fellowship

When a man ain't got a cent, and he's feeling kind of blue,
An' the clouds hang dark an' heavy an' won't let the sunshine through
It's a great thing, O my brethren, for a fellow just to lay,
His hand upon your shoulder in a friendly sort of way.

It makes a man feel queerish, it makes the teardrop start
An' you sort o' feel a flutter in the regions of the heart;
You can't look up and meet his eyes and don't know what to say
When his hand is on your shoulder in a friendly sort of way.

Oh, the world's a curious compound, with its honey and its gall
With its cares and bitter crosses, but a good world after all;
An' a God must have it leastways, that is what I say
When a hand is on my shoulder in a friendly sort of way.

—Anon.

• *HERE & THERE* •

Last month the American Dental Association was practically a component of the Illinois and Wisconsin dental societies. It was certainly convenient having the A.D.A. meeting almost in the back yard. Next year we will see you in Cleveland, the Lord, the weather and the politicians allowing.

H & T

As tomorrow is that big day on which we leave by train and boat for two weeks' vacation, it is more than hard to marshal dental *Here & There* from an amazing conglomeration of vacation ideas. These center on a quick dash to the New York Fair followed by a fishing trip. We try to think of what Arthur H. Merritt, incoming president, really did say about "Dentistry's position in public health," but things and things and things seem to keep slipping into the middle of Arthur's sentences—a catalog picture of a slick, anti-backlash reel; should we take along more 8 mm. color film and less "pan"? How bad are meal and hotel prices in New York? Will we come home by boat or train? How about the weather? Where did that yellow filter disappear to? How about *Here & There?*

H & T

The effective buying income of the average American family in 1938 was $2,116, according to a reputable business magazine. Also, the average individual American had approximately $492 to spend in this same year. What has that got to do with you? Just this: The actual dental need of that same individual in Illinois comes to approximately $53 per year. From here on we leave you to your own paper, your own pencil, your own resources and deductions. We might remark, sub rosa, that most dentists seem to be eating rather regularly, dressing fairly well and playing the usual amount of golf.

H & T

Speaking of incomes, we are told that first rate announcers for professional boxing matches generally receive $25 a night; the fans pay out good money to do much more yelling than the announcer.

H & T

This month the key-hole and transom department will again function, we hope, to no one's distaste, displeasure or disagreement: Dick Valentine has partially given up the saxophone for a new love, the piccolo. . . Dean William H. G. Logan flew to Europe on the Yankee Clipper after the A.D.A. meeting to arrive in time for the meeting of the Fédération Dentaire Internationale, of which he is President. . . Allan Brodie is quite a camera man as are also Sid Rubens, with his F/1.5 candid, and Frank Whipple. . . The teams of Fred and Harold Noyes and Harry Pinney and D. Munger Hodgman have each moved into new office space in the Pittsfield Building. . . Bill Redlich sailed his boat to the Milwaukee meeting and lived aboard while there. . . Marjorie Mayland, the pretty daughter of Walter, recently won the Harrington memorial award given annually to the outstanding student in the graduating class in the Medill School of Journalism at Northwestern University. . . The "Line O' Type" of the *Chicago Tribune* had

the following to say about Incunabulus, our own A. A. Gilbert, recently: "Incunabulus, who has been a regular contributor to this column for the last few years, is now a columnist in his own right. He begins his duties this week as north side branch correspondent for the Chicago Dental Society's weekly Bulletin."

H & T

We are told that when Edgar Coolidge was made president of the Illinois State Dental Society in 1932 he had spent so much time on dental society affairs that it was six months before he got up nerve enough to tell his wife of his election. . . Fred Haberle was recently made Grand Master of the Chicago Auxiliary of his Fraternity. . . Frank Hurlstone is called "Curly" by his friends. . . Charlie Freeman, now dean of Northwestern Dental School, first practiced dentistry in a small office on the North Side of Chicago near the city limits. . . Maurie Restell of Chicago put himself through dental school doing dental laboratory work. . . Spud Svoboda is an ardent camera fan; he's a sucker for any kind of a camera gadget—salesmen take note; Spud gets wonderful pictures with his Contax. . . August Mueller is becoming famous (or is it infamous) for his exaggerated jokes. . . Bill Datz has become a tropical fish fan.

H & T

George St. John Perrott of Washington, chief of the division of public health methods, National Institute of Health, addressing one of the evening sessions of the Milwaukee meeting, made the following statement: "The long range objective of any national dental program must be the servicing of the yearly increment of caries rather than attempting to meet the problems of dental disease which has accumulated over the lifetime of the population. Eventually we might progress to the point at which the need was completely cared for each year and the accumulated problem would cease to exist."

H & T

Charles F. Deatherage of the Illinois department of public health, reports a 44 per cent decrease in dental decay among children in a community where dental health programs had been held for 13 years.

H & T

The following sign was spotted by someone on a dentist's office door in Harbor Springs, Michigan. Apparently this D.D.S. has the right idea: "Office Open Afternoons Only, 2:30 to 5:00. On Nice Days May Be Out All Day. Phone Before Coming—Thursdays Especially."

H & T

Recently, Paul Muller of Switzerland, a '39 graduate from the Chicago College of Dental Surgery, married Miss Maurine Willman, technician in the research department of the same school. The interesting sidelight on this marriage is that Paul is the son of Dr. Paul Muller, Sr., who graduated from this school in 1911, and that Maurine is the daughter of Dr. Arthur C. Willman, who graduated in 1898. Warren Willman, a brother, is on the faculty at this school also.

Wm P. Schoen. h.

A SIGHTSEEING TOUR AROUND THE MOUTH

A RADIO TALK BY LON W. MORREY, D.D.S.

(Announcer) This week as many of our listeners know, Peoria is host to the dentists of Illinois. The Illinois State Dental Society is celebrating its 75th anniversary and it is our pleasure to cooperate with them in endeavoring to improve the health of our citizens. We have with us today Dr. Lon W. Morrey, educational director of the American Dental Association, who speaks on a rather unique subject "A Sightseeing Tour Around the Mouth." Why such a tour Doctor? Aren't most of us fairly familiar with our mouths?

(Doctor) I wonder if we are. You know, Mr. Luedeke, we use many things in our everyday world and take many of them for granted, seldom inquiring into just what they are. Yet it is a peculiar fact that if these commonplace things are presented to us in a different manner and in different surroundings from those which we ordinarily find them, our curiosity is often aroused and we find ourselves studying them with new interest.

(Announcer) I get your point. In other words, these mouths of ours are so much a part of us that we take them for granted.

(Doctor) I think most of us do. For example, Mr. Leudeke, how would you describe your mouth?

(Announcer) Well—it's a hole in my face, under my nose and over my chin. How's that?

(Doctor) Not bad at all, but your mouth is definitely much more than a hole in your face.

(Announcer) How would you define the mouth, doctor?

(Doctor) The mouth is that opening in the body through which the animal receives food. In human beings, the receiving department for food is a cavity inside the cheeks. The lips form the anterior opening and the cavity ends where the throat begins. Professionally, we call the mouth the oral cavity, although it seems to be pretty well filled with the tongue and teeth when we close it.

(Announcer) Er—I was about to say "you said a mouthful." But go on, doctor.

(Doctor) There are large mouths and small mouths. It is interesting to study mouths under varying conditions. I have seen pictures of men who could place a baseball in their mouths and others hiding a saucer in the oral cavity. Again we dentists many times have to do dental work on patients whose mouths are so small that it is difficult

*Given during the 75th Annual Meeting of the Illinois State Dental Society, Peoria, Illinois, May 8, 1939.

to do much for them except on the front teeth.

Have you ever thought of your lips as the doors of your mouth?

(Announcer) No, as a matter of fact, I haven't.

(Doctor) They are the doors to the mouth, although it does not follow that the mouth is open when the lips are spread. The mouth is really not open until the lower jaw has moved away from the upper jaw, as it does when we are preparing to bite an apple or to yawn.

(Announcer) Doctor, didn't some character in ancient history or fiction almost worry himself to death trying to move his upper jaw without moving the lower jaw?

(Doctor) I do remember something about that. I doubt whether he ever succeeded. It is the lower jaw that moves when we open our mouths and the lips or the doors of the mouth open with the lower jaw. Just as there are different kinds of doors, there are different kinds of lips. There are large lips, thick lips, thin lips, pale lips and ruby lips.

(Announcer) What are ruby lips doctor?

(Doctor) Ruby lips are healthy red lips. We also have loose lips. Lips differ from one individual to the other. We have seen persons who have beautifully shaped lips, lips which, when touching, form what is called a "cupid's bow." This seems to be characteristic of youth and principally of the fair sex.

Rigid lips, which when closed form a straight line, are usually a characteristic of age.

(Announcer) You have got me thinking doctor. What do the lips do besides serving as doors to our mouths?

(Doctor) The lips, incidentally, are very important. They help us talk plainly, they aid us in eating and drinking and they are an important part of the machinery of smiling. The muscles contained in our lips are what make lip function possible.

Now, the mouth has doors and it also has a vestibule.

(Announcer) A vestibule?

(Doctor) Yes, a vestibule. And I mean just that. The vestibule of the mouth is that area between the lips and the cheeks and the teeth and the gums. When you clinch your teeth together and blow out your lips and cheeks, the mouth vestibule becomes larger.

(Announcer) This face of mine is beginning to feel like a building. I have doors on my mouth and a vestibule inside my mouth. I suppose my eyes are the windows and I can call my nose the chimney. But what about my cheeks?

(Doctor) As in the case of the lips, the cheeks have important functions to perform for the mouth. The cheeks, of course, have muscles, blood vessels, nerves and glands. The cheek muscles aid us in chewing our food. The glands aid in keeping the mouth moist and furnish saliva for the mixing and moistening of food prior to swallowing and digestion. Two of the largest glands of the mouth—the parotid glands—are in the cheeks.

If you will open the mouth fairly wide and pull your cheeks away from the teeth with your fingers, you can see the parotid glands, just opposite the second molars.

(Announcer) And how can I locate the second molars?

(Doctor) The second molar is the seventh tooth back from the center of the upper jaw. Often, saliva can be observed running out of the gland opening.

(Announcer) These cheek muscles you mention, doctor, are pretty sturdy, aren't they?

(Doctor) Indeed they are. It is interesting, and it may be startling to some of us, to learn what a tremendous

force these chewing muscles can exert. It is said that the average force exerted by chewing muscles ranges from 150 to 300 pounds pressure during the act of chewing.

(Announcer) Does that apply to false teeth too?

(Doctor) Well, no, I am speaking of teeth that are in a good state of health or repair. Artificial teeth can exert from 35 to 70 pounds of pressure. But, leaving the cheeks, we might point out that the mouth also has a floor and a roof. If the tongue is raised from its resting place, the true floor of the mouth is exposed. The palate forms the roof of the mouth, and consists of two portions, the hard palate, which embraces the front two-thirds, and the soft palate, the posterior one-third.

Now, far back in the mouth, you will see hanging from the lower border of the soft palate a small coneshaped piece of flesh. This is called the uvula.

(Announcer) I've seen that appendage back there in my mouth and I often wonder what it is there for.

(Doctor) Well, just what purpose is served by this projecting combination of flesh and muscle it is hard to say. Possibly it acts as a warning signal as food or liquids approach the region of the throat and the so-called windpipe.

(Announcer) Doctor, we have a house with a roof floor, doors and a vestibule. How about furniture?

(Doctor) The furniture, or better the inhabitants of the mouth, are the teeth and the tongue. The tongue, lying over the floor of the mouth, serves as sort of a carpet for the floor. The tongue is a very movable and muscular organ, undergoing changes in length and width at every contraction of its muscles. When at rest, the tongue is about 3½ inches long. I don't have to tell you as a radio announcer, Mr. Luedeke, that the tongue is an important fixture in the mouth.

(Announcer) I'd be speechless without it.

(Doctor) Not only that, but you would also be without one of the important taste-sense organs if you had no tongue. Think of it, a speechless radio announcer with poor taste.

(Announcer) Let's talk about something else, my good doctor.

(Doctor) All right. Another tenant of our mouth is our teeth. In the case of the child, after infancy and until about 5 years of age, there are a total of twenty teeth in the mouth. These are all the teeth of the first set. They are smaller than the permanent teeth and tend to be whiter. And we might as well repeat right here that the first or foundation teeth are just as important from the standpoint of care as the permanent teeth.

(Announcer) When do the permanent teeth come in, doctor, and how many are there?

(Doctor) Suppose, Mr. Luedeke, while I am answering the first part of your question, we let our listeners decide how many teeth there are in the permanent set. The permanent teeth erupt between the ages of 5 and 12 years. A child usually has all his permanent teeth in his thirteenth year with the exception, of course, of his 3rd molars or wisdom teeth. The 3rd molars usually erupt sometime between the 17th and 21st year.

Now, for those of our listeners who are still trying to count their teeth, we can report that Nature gives us thirty-two permanent teeth. The teeth, as we all know, are used for chewing food, and they aid us in talking and assist materially in maintaining the shape of the face.

(Announcer) They help preserve our beauty, in other words?

(Doctor) Yes, they do, and we must preserve them to preserve our beauty. For certainly the teeth perform a valu-

able function in adding to one's personal appearance if they help to maintain the natural contour of the face and if they are clean, straight and unblemished by extensive decay or perceptible fillings. The teeth, incidentally, may be classed as cutting teeth and grinding teeth. The cutters, or incisors, are in the front of the mouth. Next in line are the cuspids and bicuspids, which tear the food, and farthest back are the molars or grinders.

(Announcer) Does that complete the sight seeing tour of the mouth, doctor?

(Doctor) No, I think we had better pause a while and consider our gums, which are also a most important part of the mouth. If the gums are normal, they are rather pink and firm and they hug the teeth tightly. If they are not healthy, they are usually red and inflamed, swollen and frequently flabby. When diseased, they are often quite sore and bleed readily when touched.

(Announcer) Now, doctor, that we have been abroad in the mouth, so to speak, tell us again why you think a sightseeing tour of the mouth is important in dental health education.

(Doctor) Well, as I explained earlier, many of us are prone to take for granted and therefore neglect parts of the body that we think little about. It is our hope that by recalling what is in the mouth and the function of each part we can better realize the importance of the mouth as an organ of the body and will give it better care.

Before we close, let us stop to consider this remarkable part of our body. Remember that all the food and drink we receive from birth to death must pass the portals of the mouth—that our first and last spoken words of love and affection, our smiles, and if we are a gifted singer or an orator, the musical notes or words of wisdom we may utter, all are associated with the mouth.

(Announcer) It is a pretty important part of us, isn't it?

(Doctor) It certainly is, and we of the dental profession cannot overemphasize the importance or regular and constant mouth hygiene and care. To those of us who are fortunate enough to have good, strong and healthy teeth, my advice is to never neglect them. Keep them clean, free from decay-producing and gum-destroying bacteria, and see your family dentist regularly.

To those of you who have faulty teeth, remember that it is never too late to have the necessary repair work done. If you know your teeth are bad, see a dentist immediately and you will be healthier and happier.

(Announcer) That's about all the time we have this afternoon, doctor, and we appreciate your leadership on a "Sightseeing Tour of the Mouth."

Ladies and gentlemen, you have been listening to Dr. Lon W. Morrey, educational director of the American Dental Association, who took us on a "Sightseeing Tour of the Mouth."

• STUDY CLUB •

FALL AND WINTER PROGRAM

Plans for the fall and winter activities of the State Society's Study Club are well under way. The Membership and Dental Education Committees as well as the Division of Dental Health Education of the State Department of Health will cooperate with the Study Club Committee as they did last year.

Many components and local organizations will continue to provide regular study club programs throughout the year to assist their membership in keeping abreast of dental advancement.

It is the desire of the Society's officers and Study Club Committee members that each component stimulate a desire for, and retention of, membership by conducting at least one study club program during the year to which all ethical dentists in the territory would be invited.

CONTACT MEN—

In order to provide a contact man for each district who can assist local study club committees in arranging their programs the members of the State Study Club Committee have been assigned as follows:

Dr. R. W. McLean, Vice-Chairman, Peoples Bank Bldg., Bloomington—Central District—(Peoria and McClean Societies).

Dr. A. E. Glawe, 519 Safety Bldg., Rock Island—Northwestern District—(Rock Island, Whiteside-Lee, Winnebago and Northwest Societies).

Dr. A. C. Spickerman, DeKalb—Northeastern District—(Kankakee, Will-Grundy, LaSalle and Fox River Societies).

Dr. Ora E. Sterett, Monmouth—Central Western District—(G. V. Black, T. L. Gilmer, Knox and Warren Societies).

Dr. G. L. Kennedy, Villa Grove—Central Eastern District — (Macon-Moultrie, Eastern Illinois and Champaign-Danville Societies).

Dr. W. A. McKee, Benton—Southern District—(Madison, Southern Illinois, St. Clair and Wabash River Societies).

Dr. J. B. LaDue, 25 E. Washington St., Chicago—Chicago District.

Component officers are urged to contact the member of the Study Club Committee in their district NOW so that plans may be made early for the fall and winter activities.

To those members of the State Society who desire more extensive study than is afforded by the state program, we suggest that they make use of the splendid opportunities offered by the Chicago Dental Society Study Club.

SUBJECTS AND INSTRUCTORS—

The following men have been secured to serve as instructors and essayists during the coming year. Local Component Chairmen should make their selections NOW to avoid disappointment.

Please save this roster of instructors and subjects for future reference.

HISTOLOGY

Dr. Isaac Schour, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

PORCELAIN WORK

Dr. S. D. Tylman, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. W. J. Bray, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. F. N. Bozola, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. R. A. Larsen, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. H. W. Oppice, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

Dental Health Education

Dr. C. Floyd Deatherage, Chief, Division Dental Health Education, State Dept. Public Health, Springfield, Illinois. (There is no travel expense or honorarium connected with this speaker. Subjects: "Dental Health Education in Illinois" or "The Economics of a Children's Practice.")

Orthodontia

Dr. Leland R. Johnson, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois.

Dr. Frederic E. Haberle, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois.

Dr. R. A. Jentzsch, 185 N. Wabash Ave., Chicago, Illinois.

Dr. J. H. Williams, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Mo.

Dr. Virgil A. Kimmey, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Children's Dentistry

Dr. Joseph Rzeszotarski, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

Dr. G. W. Teuscher, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois.

Dr. Ruth Martin, Washington University College of Dentistry, 4559 Scott Ave., St. Louis, Missouri.

Dr. Drexell A. Boyd, University of Indiana School of Dentistry, Indianapolis, Indiana. (I. Children's Dentistry. II. The 6 Yr. Molar. III. The Significance of the Preventive Aspects of Pedodontia.)

Dr. H. B. Morrow, University of Indiana School of Dentistry, Indianapolis, Indiana. (Nutrition as Related to the Care of Children's Teeth.)

Dr. Geneve G. Riefling, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. Harry B. Shafer, Anna, Illinois. (Children's Dentistry an Important Factor in Dental Economics—Lecture, Slides and Table Clinic.)

Dr. Lloyd C. Blackman, Elgin, Illinois.

Dr. R. C. Kolb, Mascoutah, Illinois. (Children's Dentistry as Handled in General Practice.)

Dr. J. Walton Dace, Winchester, Illinois.

Oral Surgery, Minor Oral Surgery and Anesthesia

Dr. F. W. Merrifield, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois.

Dr. H. J. Droba, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. Eli Olech, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. Louis W. Schultz, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. G. Thaddeus, Indiana University School of Dentistry, Indianapolis, Indiana. (I. Removal of Impacted Third Molar. II. Problems of Oral Surgery of Interest to the General Practitioner.)

Dr. P. G. Puterbaugh, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

Dr. John Svboda, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

Dr. Ralph Burkhart, Marion, Illinois.

Dr. Arthur C. Engel, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. Valentine H. Frederich, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. Halton P. Siddall, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. George B. Broadhurst, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. E. C. Hume, University of Louisville School of Dentistry, Louisville, Ky.

Dr. Lester H. Jasper, Washington University College of Dentistry, 4559 Scott Ave., St. Louis, Missouri.

FULL DENTURES

Dr. Thomas Moore, Washington University College of Dentistry, 4559 Scott Ave., St. Louis, Missouri.

Dr. Wm. R. Kern, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois. (Hydro-Colloid Impression Materials—Lantern Slides.)

Dr. J. S. Kellogg, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. W. H. Kubacki, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. M. H. Hattenhauer, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. Frank C. Hughes, Indiana University School of Dentistry, Indianapolis, Indiana.

Dr. Charles S. Helm, 1209 Talcott Bldg., Rockford, Illinois. (Stabilizing Lower Dentures.)

Dr. L. E. Kurth, 180 N. Michigan Ave., Chicago, Illinois.

Dr. Henry Glupker, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

Dr. R. R. Blanchard, First National Bank Bldg., Springfield, Illinois.

Dr. J. R. Bustetter, University of Louisville School of Dentistry, Louisville, Kentucky.

Dr. Lee Z. Dennison, Springfield, Illinois. (Impression Technique.)

Dr. Wm. E. Wilson, Springfield, Illinois. (Plastics for Dentures.)

Dr. E. Mulacek, 4044 W. 26th St., Chicago, Illinois. (Treatment Dentures.)

Dr. J. B. LaDue, 25 E. Washington St., Chicago, Illinois.

Dr. W. A. Alexander, Carlinville, Illinois. (Denture Rebasing.)

PARTIAL DENTURES

Dr. James W. Templeton, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Mo. (Cleft Palate Correction.)

Dr. Geo. E. Pfeifer, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. J. S. Kellogg, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. W. H. Kubacki, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. M. H. Hattenhauer, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. Frank C. Hughes, Indiana University School of Dentistry, Indianapolis, Indiana.

Dr. Henry Glupker, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

OPERATIVE DENTISTRY

Dr. S. S. Arnim, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. Webb Gurley, Washington University Dental School, 4559 Scott Ave., St. Louis, Missouri.

Dr. Harold Rinesmith, Washington University Dental School, 4559 Scott Ave., St. Louis Missouri.

Dr. John W. D. Enloe, Washington University Dental School, 4559 Scott Ave., St. Louis, Missouri.

Dr .E. Bodmer, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois. (Gold Inlays.)

Dr. R. K. Baxter, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. C. M. Buckman, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. J. L. Wilson, Indiana University School of Dentistry, Indianapolis, Indiana. (I. Inlay. II. Gold Foil.)

Dr. Russell C. Wheeler, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. Ralph A. Barker, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. Justin Max Grimm, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. R. E. Myers, University of Louisville School of Dentistry, Louisville, Ky. (Casting Technique.)

Dr. Arne F. Romnes, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois. (Amalgam, Cavity Preparation, Matrices, Manipulation, Lantern Slides and Colored Movies.)

Crown and Bridge

Dr. Robert McBoyle, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

Dr. H. W. Oppice, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Illinois.

Dr. Hugh M. Biggs, Washington University Dental School, 4559 Scott Ave., St. Louis, Missouri.

Dr. Thermon B. Smith, Washington University Dental School, 4559 Scott Ave., St. Louis, Missouri.

Dr. Max Kornfeld, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. Thomas J. Davis, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. Dale V. Carmichael, St. Louis University School of Dentistry, 3556 Caroline St., St. Louis, Missouri.

Dr. S. D. Tylman, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. W. J. Bray, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. F. N. Bozola, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. R. A. Larsen, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. Ert J. Rogers, Indiana University School of Dentistry, Indianapolis, Ind.

Dental Pathology and Therapeutics

Dr. R. G. Kesel, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. E. H. Kramp, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. E. C. Wach, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. Gerald D. Timmons, Indiana University School of Dentistry, Indianapolis, Ind. (Lecture based on Information Obtained from a Questionnaire.)

Dr. Thaddeus Gregory, Indiana University School of Dentistry, Indianapolis, Ind. (I. Oral Pathology. II. Technic for Use of Local Anesthesia.)

Dr. M. K. Hine, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Illinois.

Dr. E. D. Coolidge, 25 E. Washington St., Chicago, Illinois.

Radiography

Dr. W. E. Koch, Washington University College of Dentistry, 4559 Scott Ave., St. Louis, Missouri.

Dr. Thaddeus Gregory, Indiana University School of Dentistry, Indianapolis, Ind.

Dr. Collins Alloysius LeMaster, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

Dr. LeRoy Main, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

Dr. Robert R. Fosket, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois.

Dental Medicine

Dr. B. N. Pippin, Washington University College of Dentistry, 4559 Scott Ave., St. Louis, Missouri.

Dr. E. A. Jasper, Washington University College of Dentistry, 4559 Scott Ave., St. Louis, Missouri.

Dr. John W. Groves, Indiana University School of Dentistry, Indianapolis, Ind. (Relationship of Medicine and Dentistry.)

Dr. W. W. Dalitsch, University of Illinois College of Dentistry, 808 S. Wood St., Chicago, Ill. (Medical Problems in Dentistry.)

DIAGNOSIS

Dr. L. Jasper, Washington University College of Dentistry, 4559 Scott Ave., St. Louis, Missouri.

Dr. Collins Alloysius LeMaster, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

Dr. LeRoy Main, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

Dr. John Svoboda, 1757 W. Harrison St., Chicago College of Dental Surgery, Chicago, Illinois.

DENTAL ANATOMY

Dr. Ross Franklin Bleiker, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

Dr. Charles Richard Lages, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

Dr. R. G. Wheeler, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

ECONOMICS

Dr. Lon W. Morrey, 212 E. Superior St., Chicago, Illinois.

Dr. M. M. Lumbattis, Mt. Vernon, Illinois.

Dr. H. L. Freidinger, 751 Citizens Bldg., Decatur, Illinois.

Dr. Lloyd Dodd, Decatur, Illinois.

Dr. B. Placek, 1545 W. Division St., Chicago, Illinois.

PERIODONTIA

Dr. Bernard D. Friedman, 55 E. Washington St., Chicago, Illinois.

Dr. Clarke E. Chamberlain, 633-34 Jefferson Bldg., Peoria, Illinois.

Dr. Balint Orban, Northwestern University School of Dentistry, 311 E. Chicago Ave., Chicago, Illinois. (1) Pathology and treatment of so-called Pyorrhea. (2) Traumatic Occlusion and Its Chemical significance. (3) The Deep Pocket and Its Treatment.

Dr. Jerome S. Grosby, St. Louis University Dental School, 3556 Caroline St., St. Louis, Missouri.

Dr. John J. Corlew, Mt. Vernon, Illinois.

PHYSICAL PROPERTIES OF METALS AND OTHER DENTAL MATERIALS

Dr. E. W. Skinner, Physicist, Northwestern University Dental School, Chicago Avenue at the Lake, Chicago, Illinois.

Dr. Henry Boris, Chicago College of Dental Surgery, 1757 W. Harrison St., Chicago, Ill.

Dr. Earl E. Shepard, Washington University Dental School, 4559 Scott Ave., St. Louis, Missouri.

IMMEDIATE DENTURES

Dr. W. A. McKee, Benton, Illinois.

Dr. Harry E. Denen, 4621 Broadway, Chicago, Illinois.

DIET AND NUTRITION

Dr. H. B. Morrow, University of Indiana School of Dentistry, Indianapolis, Ind.

Dr. A. W. Homberger, University of Louisville School of Dentistry, Louisville, Ky.

ORAL HYGIENE

Dr. Ellis G. Bovik, Northwestern University College of Dentistry, Chicago Avenue at the Lake, Chicago, Illinois.

L. W. Weber,
Chairman, Study Club Committee.

• A.D.A. NEWS •

THE MILWAUKEE MEETING

Milwaukee and other Wisconsin dentists responsible for staging the recent session of the American Dental Association have every reason to feel proud of their accomplishment. Over 8,000 dentists, exhibitors and guests were in attendance at this 81st Annual Meeting and the consensus as taken by this reporter was one of complete satisfaction with all sessions—scientific, clinic, exhibit, business and entertainment.

Scientific Sessions—

The commodious, well-ventilated and sound proof section rooms were a distinct improvement over those of other years. Well prepared and fully illustrated papers or lectures presented before large audiences were the rule rather than the exception in all of the eight scientific sections held from Tuesday noon through Thursday noon. The Children's Dentistry and Oral Hygiene section was particularly well attended, indicating that an ever increasing number of dentists realize the value of a clientele that includes children as well as adults.

The motion-picture-theatre method of showing new or advanced technics, established in St. Louis last year, was continued. The showing of better quality films of both silent and sound variety with easily understood titles and sub-titles made this method of post-graduate education extremely popular with a vast majority of those in attendance.

Clinics—

Most of the three hundred and sixty-four clinicians scheduled to present some special phase of dental technic, research, or education were busily engaged during their allotted hours. Since most clinics at all dental meetings are well presented and well attended no additional comment is necessary.

Scientific and Health Exhibits—

Scientific and health exhibits have long been a feature of A. D. A. meetings and this year was no exception, since many pronounced them the "best ever." The number of exhibits was somewhat less than last year but the average quality and character were much improved. The facilities of the exhibition hall were excellent, the wide aisles and superior lighting being especially noted.

Perhaps the most outstanding health exhibit was that of the Wisconsin State Departments of Health and Agriculture which was designed and constructed under the direction of Dr. F. A. Bull, Wisconsin State Dental Director. This exhibit, called "Dairy Lane for Dental Health," consisted of a series of displays depicting exactly how the dairy industry of Wisconsin produces milk, cheese and butter that contains the right amount of proper minerals for the building of sound teeth when take in sufficient quantities by expectant mothers and children of pre-school age.

First awards were presented to the following scientific exhibitors: Division A—New York Institute of Clinical Oral Pathology; Division B—Marquette University; Division C—Samuel Radkin of Cincinnati.

An innovation of this year's exhibits was the special open house held on Tuesday evening to which the public responded in great numbers.

Business Sessions—

The House of Delegates completed its task of transacting the year's accumulation of business with unusual dispatch and decorum. This could be attributed to two factors: excellent guidance by the presiding officer, Marcus L. Ward and well prepared reports by the several committees and the Board of Trustees. But one general criticism was heard throughout the several sessions, that of poor accoustics caused by the use of a one directional "mike."

Only those items of general interest will be mentioned here.

DUES. A special reference committee headed by Vern D. Irwin of Minnesota reported on the proposed amendment to increase the Association's dues with final recommendations as follows: "(1) That all State Dental Associations and component societies be urged at once to make such changes in their constitution and by-laws as will authorize those organizations to collect an additional $2.00 dues for the American Dental Association. (2) That the American Dental Association and all component societies carry out thoroughly a plan to acquaint the general membership with their own needs as expressed by the demands of the aggregate membership in this Association."

As a result of this report a motion to postpone action for one year on the amendment to increase dues was carried.

DENTAL INSTITUTE OF AMERICA. The third attempt of the Dental Institute of America, whose headquarters are in Chicago, to receive approval of the American Dental Association met with the same result as the two previous efforts. The House denied approval to the Institute because: (1) control of the organization was in other hands than those of the organized profession, and (2) there was insufficient guarantee that future publicity would be of an ethical type.

NATIONAL HEALTH PROGRAM. The report of the National Health Program Committee, a special committee created by the House last year in St. Louis, was approved without a dissenting vote and the Committee was ordered to continue its activities during the coming year. This report, one of the most important under consideration by the Delegates, consisted of: (1) the Committee's statement and subsequent testimony as given before the U. S. Senate hearing held June 1, 1939 on the Wagner Health Bill (S. 1620), and (2) tentative plans for the participation of dentistry in national, state and community health programs. The tentative plans, consisting of correlated programs for dental research, dental health education and dental care, were prepared, so the report stated, "pursuant to the many requests from state and local dental organizations for guidance in the formation of plans to provide dental care to the dentally indigent." All of the proposals were in keeping with the eight principles adopted by the House of Delegates in October, 1938, as the basis for any program of public dental service.

The following quotation from the report is indicative of the type of program advocated: "No successful dental program can be based on the treatment of dental diseases alone, but such treatment must be correlated with a comprehensive program of dental health education for all. If complete dental care of highest quality cannot be provided for all children because of insufficient funds, primary consideration should be given to those children of the earlier age groups."

1940 MEETING PLACE. Cleveland proved to be the choice of a majority of delegates for the 1940 place of meeting. Dallas, from a standing start, ran a good race and can be expected to be the winner in another year or so.

NEW OFFICERS. A contest for the office of President-Elect developed when Dr. Wilfred H. Robinson, of Oakland, California and Dr. C. R. Lawrence of Enid, Oklahoma, retiring members of the Board of Trustees, were both nominated for this high office. Dr. Robinson was the victor by the narrow margin of nine votes.

The following were elected without contest: Dr. F. A. Bull, Milwaukee, Wisconsin, first Vice-President; Dr. B. Lucien Brun, Baltimore, Maryland, second Vice-President; Dr. F. L. Leggett, Laurel, Mississippi, third Vice-President; Dr. Harry B. Pinney, Chicago, Secretary; Dr. Roscoe H. Volland, Iowa City, Iowa, Treasurer, and Drs. H. J. Burkhart, Rochester, New York, Albert Hallenberg, Fargo, North Dakota, Fred J. Wolfe Sr., New Orleans, Louisiana and Dr. D. W. McLean, Los Angeles, California, members of the Board of Trustees.

During the closing moments of the final business session the newly elected officers and the incoming President, Dr. Arthur H. Merritt were properly installed by the retiring President, Dr. Marcus L. Ward.

• SOCIETY BULLETINS •

ST. CLAIR

The St. Clair District held their annual picnic and outing at the Waterloo Country Club, July 13, 1939. There was an unusually large crowd and all seemed to be having a good time. A blind bogey golf tournament was the main feature with Dr. James Kuebel and E. R. Brant tying for first place. Low ball for the day was Dr. James Hogan with a neat 65 on a par 68 course. There were both contract and auction tables for the ladies. Mrs. George Hobbs was the auction winner and Mrs. R. A. Hundley first in contract. Swimming was very actively engaged in by the teenage guests. Dr. J. C. Wilson as prize chairman had assembled enough so that all dentists who attended were awarded nice prizes. The golf players won enough balls to compensate for the ones left in the lakes and rough. Dare I mention the poker game where the writer made 5 aces against Dr. Van McKee's 8 high straight? Dr. James Mahoney, wife and two sons from Wood River were the Illinois guests with several of the specialists from St. Louis in attendance.

About 80 sat down to the dinner table where fried chicken was served until all could eat no more even though they were still bringing it in. An orchestra of young Waterloo students furnished music during the dinner hour. The evening was filled with dancing to recorded music, cards and conversation. The conversation was led, aided and abetted by Dr. Stanley Wynn.

The thanks of the Society to all who aided and participated in making the outing a success.

Robert A. Hundley,
Component Editor.

* * *

PEORIA

Some people have vacations while others seem to get a "bus man's holiday"! Some months ago Dr. H. J. Summer tuned up his outboard motor for a little fishing trip. The motor worked fine at home, but out on the river stopped dead. The Doctor had to row three miles to get back. Just recently he left for fourteen days active duty at Jefferson Barracks where, as 1st Lieutenant in the Reserve Officers Corps, he expected to get some training in military tactics. Instead he spent most of his time checking the teeth of CCC boys.... Probably the most air-minded man in the society is Dr. W. A. Johnston, who holds an "Admiral" card from the American Airlines because of his wide travel by air. After a hurried trip to New York and return via Philadelphia, Dr. Johnston has again started back to New York, this time by automobile. A card mailed from Niagara Falls says "all are well and getting along fine"....Dr. Guy Sandy is also up in the air these days. Guy and Alice are to be congratulated on the arrival of a fine baby boy, James Melville Sandy....Dr. A. Applebaum is vacationing in Northern Michigan where he hopes to do some fishing....Dr. and Mrs. C. E. Bollinger are in the vicinity of Yellowstone National Park. ....The population of Washington, Illinois, was depleted by two people while Dr. and Mrs. H. K. Mueri were in Rochester, Minnesota, where they visited the Mayo Clinic....I wonder if Dr. J. P. Blumenschein has gone North for his hay fever? ....Dr. H. C. Rodenhouser has concocted a mosquito lotion that keeps them away. The ingredients are so vile that we can't even print them.

E. H. Mahle,
Component Editor.

* * *

CHICAGO

Last month we extolled to the skies the City of Milwaukee and the State of Wisconsin as being ideally situated to entertain a dental gathering of national scope. Those who attended the A. D. A. meeting were not disillusioned by our ebullient presentation of the case....Two of our Chicago golfers finished in the first three in the Golf Tournament. Earl Harris and Bob Lasater were 1 stroke and 2 strokes, respectively behind the leader, Bud Harris,

Earl's younger brother. This is the first time that Bud has been able to beat Earl and the boy from the cornfields of Iowa certainly came through like a real champion. It became Earl's duty to present the trophy, emblematic of the A. D. A. Championship, to his brother at the evening banquet. Earl paid tribute to Bud in such sincere and glowing terms as to touch the hearts of all present....The scientific sessions were well attended and many Chicago men did their part to make the meeting a success. Charlie Baker, through the cooperation of the Chicago Society of Orthodontists, gave a demonstration of orthodontic appliances secured from various commercial laboratories both in and out of the city. "Orthodontia as it should not be practiced," would perhaps have been a more illuminating subject than the one chosen, "Mail Order Orthodontics." All the dentist has to do is take an impression of the patients' mouth and send it to the laboratory. They in turn not only will make up the appliance but will advise the dentist what appliance to use and how to use it. That's really taking the sweat and grime out of rolling your own!....One whole section of the program was devoted to motion pictures. And, taking a cue from Liberty magazine, notations were made as to showing time. These ranged all the way from 15 to 78 minutes. Especially intriguing was the title, "Application of the Rubberdam," time, 35 minutes. That really is going in for damning in a big way....We note with great satisfaction the reappointment of Harold Hillenbrand as Editor of the Bulletin. He has inaugurated a number of new features these past two years that make the Bulletin outstanding in this field of endeavor. The page devoted to Book Reviews deserves especial commendation and the Editorials have "thoughts that breathe and words that burn."....Those of you who have been riding the Law Enforcement Committee for inaction can now get off! Through the efforts of the co-chairmen, Emil Anderson and Frank Hurlstone, the operators of three illegal laboratories here in Chicago are now in the toils of the law. The loop office and all branch offices of the Merit Dental Laboratories have been permanently closed. Dr. A. A. Dubin is out on a $1,000 bond with case continued until August 21st. When this guy is languishing in clink, everyone will breathe easier.

James H. Keith,
Component Editor.

* * *

QUINCY STUDY CLUB

The following is the complete program of the Quincy Dental Study Club for the coming year:

Sept. 12, 1939—Dr. Howard C. Miller, "Surgery."

Oct., 1939—Joint Meeting—Three Societies, Keokuk, Iowa.

Nov. 14, 1939—Dr. Carroll Birch, "Diseases of the Blood."

Dec. 12, 1939—Dr. George Teuscher, "Children's Dentistry."

Jan. 9, 1940—Dr. Max Kornfeld, "Crown and Bridge."

Feb. 13, 1940—Dr. L. R. Main, Roentgen Ray in Every Day Practice."

Mar. 12, 1940—Dr. Harry Denen, "Immediate Dentures."

April 9, 1940—Dr. Arne F. Romes, "Amalgam," illustrated with colored slides.

We feel that with this list of Clinicians the Study Club has prepared a wonderful course for the fall and winter.

Jesse F. Keeney,
Secretary.

* * *

MADISON

The Alton Dental Society held its annual golf tournament and meet on July 20, at Rock Springs Country Club. . . . George Bassford ran away with the McMillen Trophy. . . . Other trophies were awarded to Gordon Smith and Ed Gallagher. . . . Through the courtesy of our dental supply houses and laboratories who so generously gave favors all members who played golf received prizes. . . . The blind-bogey was won by Jim Coleman. . . . A good time was had by all including the players who lost at poker.

AMONG THE VACATIONISTS: Gordon Smith has just returned from a cruise of the Great Lakes, arriving home in a new land cruiser. We wished that all of us could have been with him on this trip. How about a ride now, Gord? . . . Jim

Mahoney and Earl Shepard vacationed in Wisconsin after attending the A. D. A. meeting in Milwaukee.

R. A. Dickson,
Component Editor.

* * *

CHAMPAIGN-DANVILLE

The Champaign-Danville Dental Society will have their first fall meeting on the afternoon and evening of September 28 at the Hotel Wolford, Danville, Illinois. The afternoon speaker will be Dr. Lon W. Morrey of the American Dental Association who will speak on the subject "What We Receive in Return for Our American Dental Association Dues."

The evening will be devoted to a presentation of Dr. George B. Winter's sound film entitled "Fundamental Principles for the Technical Removal of the Mandibular Third Molar." This is the first complete sound-on-film picture of a dental subject —an innovation in teaching for the general practitioner.

A large attendance is expected from Central-Eastern Illinois and Western Indiana. All members are most cordially invited.

Homer Peer,
Program Chairman.

* * *

CHICAGO MIDWINTER MEETING

The Chicago Dental Society will hold its 1940 Midwinter Meeting February 12 to 15 inclusive, at the Stevens Hotel, according to an announcement by Dr. Harold W. Welch, President.

Plans are already well under way to make this the finest in the long series of successful meetings sponsored by the Chicago Dental Society.

Leo W. Kremer,
Secretary.

* * *

GOLDEN GATE DENTAL CONGRESS

San Francisco, host of the Pacific Coast in 1939, invites all members of organized dentistry to join with her in celebrating the Golden Gate Dental Congress to be held here September 25, 26, 27, 1939. The Golden Gate Dental Congress is sponsored by the California State Dental Association and the Southern California State Dental Association and will be assembled jointly in San Francisco's world-renowned neighboring hotels, the Fairmount and the Mark Hopkins. These hotels, situated atop Nob Hill, overlook the beautiful San Francisco Bay, affording a magnificent view of Treasure Island, home of the great Golden Gate International Exposition.

The program of the Golden Gate Dental Congress is rapidly taking form. Various nationally known men of exceptional ability will make an exceedingly strong framework around which is being built much quality material in producing a program structure of Dental Education highly valuable to the attending profession.

Lloyd E. Linehan,
Chairman, Publicity Committee.

* * *

GREATER NEW YORK DENTAL MEETING

The Greater New York Dental Meeting will be held December 4, 5, 6, 7 and 8, 1939, at the Hotel Pennsylvania, New York City, New York. All mail should be addressed to Room 106A.

Percy T. Phillips,
Chairman,
Press and Publication Committee.

* * *

A. D. A. 1940 DENTAL APPOINTMENT BOOK NOW READY

Just what every member has wanted for years.

Bound in black imitation leather, gold stamped with substantial sewed binding, this 7½x10¼ book lies flat when open and shows a full week's appointments at one glance.

In addition to the appointment pages it contains the following information: Biographical sketch of Chapin A. Harris; District Map of A. D. A.; Organization Chart; Code of Ethics; List of Certified Dental Materials; List of Books and Package Libraries; List of Dental Health Educational Material; Patient Recall Service and the Beneficial Circle Plan.

Prepared by the Bureau of Public Relations, A. D. A., 212 East Superior Street, Chicago.

Price—$1.00. Individualized names stamped in gold on cover—25c extra.

Order from page A-34, July Journal of the American Dental Association.

• BOOK REVIEWS •

CONDUCTION, INFILTRATION AND GENERAL ANESTHESIA IN DENTISTRY. *By Mendel Nevin, D.D.S., Former Oral Surgeon Greenpoint Hospital, Former Oral Surgeon Hospital Deformities and Joint Diseases; Consultation Anesthetist, Ocean Hill Memorial Hospital, and P. G. Puterbaugh, M.D., D.D.S., F.A.C.D., Professor of Principles of Medicine and Anesthetics and Associate Professor of Oral Surgery, Chicago College of Dental Surgery, Dental Department Loyola University. With Fred R. Adams, D.D.S., F.I.C.D., and Hillard R. Nevin, L.D.S., D.D.S., as collaborators. Cloth. Price* $6.00. *Pp.* 412 *with* 213 *illustrations. Brooklyn, New York: The Dental Items of Interest Publishing Co., Inc.* 1938.

Modern Dentistry demands the use of an anesthetic for cavity preparation, and pulp extirpation as well as for extraction of teeth and other surgical treatments. It is no longer necessary to bring forth arguments in favor of using a local anesthetic in the daily routine of general practice. In the hands of competent dentists, injections may be made painlessly, and with definite results. The problem today is to raise the technique of administration to a high point of efficiency.

To men and women in dentistry interested in improving their method of administering local anesthetics and having their questions regarding nitrous oxide analgesia, and general anesthesia answered this volume is highly recommended.

The book is divided into two parts, the first dealing with local anesthesia, the second with general anesthesia and nitrous oxide oxygen and analgesia.

It is amply illustrated, having 213 illustrations which show all the anatomical guides as well as all the important proximating structures. The photographs are of drawings, dry and wet specimens and of patients. In addition other pictures show the various armamentarium and equipment used.

The authors have eliminated all irrelevant discussion and have devoted their efforts strictly to factual material. This they have written in a simple, direct way which is readily understood. An example of the author's clarity of description is contained in the following quotation. "The tongue occupies the floor of the oral cavity. It is composed of four intrinsic and four extrinsic muscles on either side. The four intrinsic muscles, two in sagittal and two in transverse planes, form the substance of the tongue.

"The four intrinsic muscles are united to the floor of the oral cavity by the genioglossus muscle, which runs in a fan shaped manner from the two upper genial tubercles to the hyoid bone and to the under surface of the tongue.

"The hyoglossus muscle joins the hyoid bone to the side of the tongue.

"The styloglossus muscle connects the styloid process with the under surface of the tongue.

"The glossopalatinus muscle, also one of the extrinsic muscles of the tongue, forms the anterior pillars of the fauces.

"These four extrinsic muscles help the various movements of the tongue such as elevation, depression, protrusion and retraction.

"The upper surface or dorsum of the tongue is strongly convex in its length and not flat as its appearance would indicate. Beginning at the anterior pillars the tongue sweeps downward, assuming almost a vertical position, and forms the anterior boundary of the oral pharynx."

This word picture is supplemented by schematic drawings, which should help the reader.

The authors present a definite technique for anesthetizing every conceivable part involved in dental operations describing both the common and unusual approach.

The final chapter will no doubt be of special interest to the man who has had some difficulty with local anesthesia. The author attempts to answer some of the numerous questions asked by dentists.

Page 337—Question 8.

"What may be the cause of the patient

being unable to close his lower eyelid after a mandibular injection?"

Answer—"The anesthetic solution was deposited too far back into the parotid gland. In this instance, however, the injection was also made too high. The cervictemporal branch of the facial nerve, which serves the lower eyelid with motor nerve supply, was anesthetized. This accounts for the fact that the patient could not close her eyelid on the side of the injection."

Five chapters are devoted to general anesthesia and analgesia, discussing idications, and methods of administration, the differences between administering general anesthesia in the dental office and in a hospital, various anesthetic agents and stages of anesthesia.

There is a valuable discussion of the management of cases requiring special care, such as alcoholics, drug addicts, heavy smokers and many others. The reason suggested by the author for the difficulty of inducing narcosis with nitrous oxide oxygen anesthesia in an alcoholic, may be, the alcoholic oxidation of body tissues similar to that produced by inhalation of pure oxygen. It has been demonstrated experimentally that it is impossible to induce nitrous oxide oxygen or ethylene anesthesia, immediately following a twenty minute administration of pure oxygen.

A complete bibliography is included.

As a text for the student, as a reference for the man in practice this volume is recommended.

Henry J. Droba.

THE DENTIST AND HIS CONTROL OF PRACTICE. *By S. Joseph Bregstein, D.D.S., Author "The Business Conduct of an Ethical Practice," Contributing author "Preparation Manual for Accident Cases" by S. Schweitzer; Writer on Professional Business Management, Lecturer on Dental Office Administration, Member American Dental Association, Member New York State Dental Society, Member Second District Dental Society, Director Department of Economics and Associate Editor of "Dental Items of Interest," Member Kings County Dental Society and Allied Dental Council. Price $4.00. Pp. 194. Brooklyn, New York; Dental Items of Interest Publishing Co., Inc. 1939.*

"A text book of ethical precepts on dental office administration. . . . " This quotation from the book's title page is quite indicative of the subject matter to be found within its pages. Each of the first four chapters deals with a seperate administrative phase of dental practice.

Chapter I offers advice on the establishment of the dentist-patient relationship or as the author calls it "The Art of Contracting."

In Chapter II under the heading "Design for Treatment" will be found a discussion of approved methods of diagnosis with special reference to design sheets, record charts, and visual education technique. A most interesting part of this chapter is that portion devoted to establishing and maintaining the interest of the child patient.

In but five pages Chapter III discloses effectively and sufficiently the importance of pain elimination as a factor in practice building.

The real meat of the entire book, so far as the average dentist is concerned, is to be found in Chapter IV. It would be well worth the time of any dentist to read aloud this entire chapter to his dental assistant. Such matters as credit, collection of fees, business research, letter writing and telephone conversation are treated in a manner that will contribute to the success of any practice.

Chapters V and VI, entitled "Orientation" and "Dental Ethics," respectively, seem particularly fitted for student reading although many practicing dentists could profit by becoming familiar with their contents.

Taken as a whole the book is recommended for reading by the many dentists who have failed to inject modern professional business methods of an ethical nature into their practice.

The author's style of writing is not always conducive to smooth reading. Short, definite statements of opinion, fact or experience are too frequently preceded or followed by extraneous philosophical passages that contribute nothing to the reader's interest or education and cause a desire to skip-read.

Harold W. Oppice.

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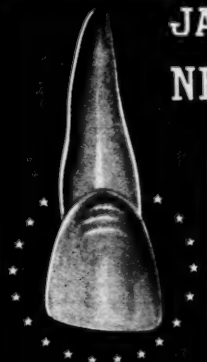

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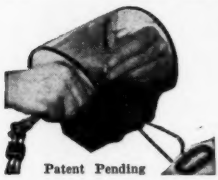

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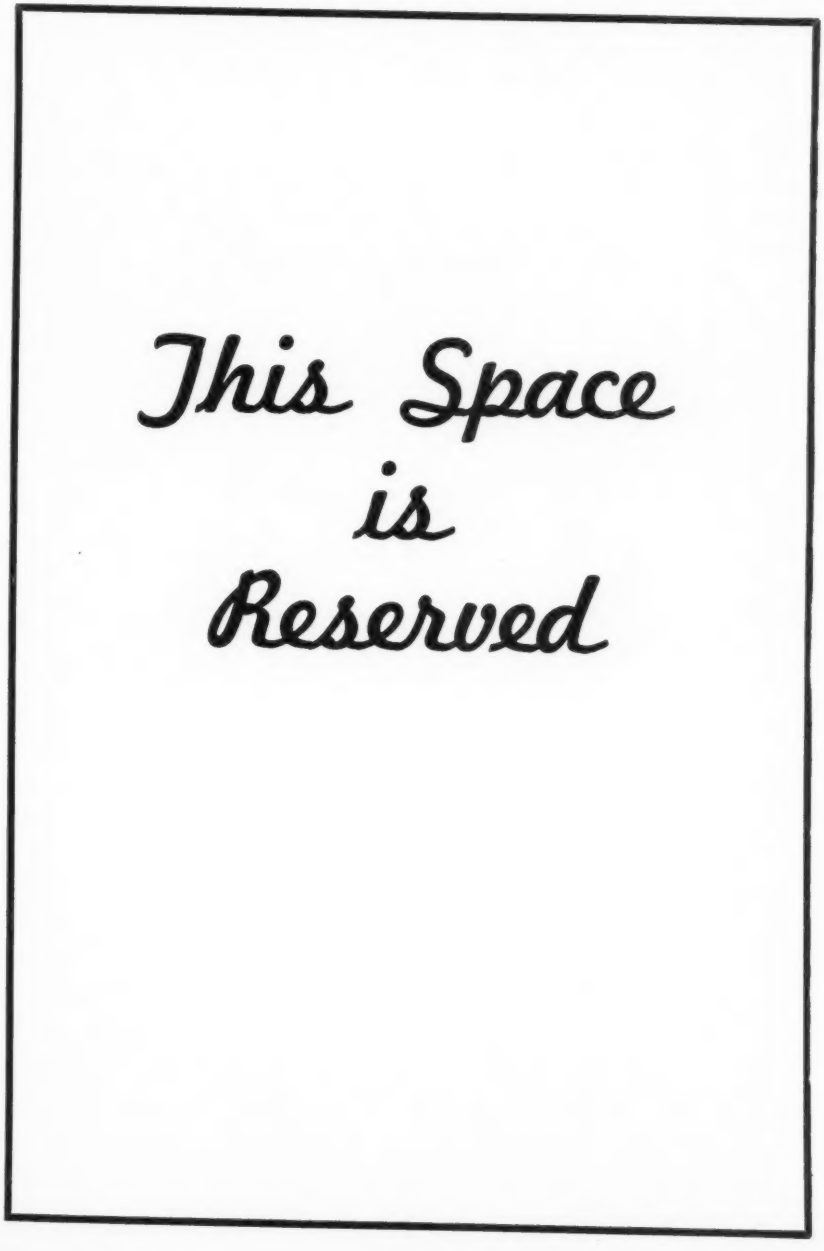
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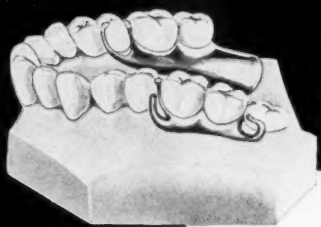

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